JENSEN

# VM9424

## Operating Instructions

160 watts peak
40W x 4

# CONTENTS

Thank you for choosing a Jensen product. We hope you will find the instructions in this owner's manual clear and easy to follow. If you take a few minutes to look through it, you'll learn how to use all the features of your new Jensen VM9424 Mobile Multimedia Receiver for maximum enjoyment.

***NOTE: NavMate navigation software instructions are included at the end of this manual. A separate NavMate Table of Contents is listed after this Contents section.***


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# FEATURES

Congratulations on your purchase of the Jensen VM9424 Mobile Multimedia Receiver. It's a good idea to read all of the instructions before beginning the installation. We recommend having your Jensen VM9424 installed by a qualified installation shop.

***DVD***

- Aspect ratio - full and normal
- Fast forward/reverse - 2X, 4X, 8X and 16X
- Play, pause, stop, next chapter and previous chapter

***CD / MP3 / WMA***

- CD-Text compatible
- ID3 tag compa ible
- Directory search (MP3 / WMA Only)
- Direct track access via remote control
- Play up to 1500 MP3 and WMA files from a DVD±R / RW
- Audible forward/reverse track search (CD-DA Only)
- Random, repeat and intro
- Play, pause, stop, next track and previous track
- MP3 playback via SD/USB
- Limited rear zone control (disc only)

***AM-FM***

- USA frequency spacing
- 30 station presets (18 FM / 12 AM)
- Auto stereo/mono
- Local/distance
- Auto store/preview scan

***iPod***

- iPod via USB
- High speed direct connect interface to access iPod playlists, artists, albums and songs. Play music and view video files from your iPod. *Video playback requires jLink-USB iPod interface cable (sold separately).
- Power management charges iPod while connected

***Chassis***

- 2 0 DIN (import / ISO-DIN mountable)
- 6 2" TFT active matrix LCD
- 336, 960 sub pixels (1440W X 234H)
- Beep tone confirmation (ON-OFF option)
- Heat management system with forced air cooling to keep the chip sets operating at nominal temperatures

***General***

- MediaLink USB - 3.5mm AV input and USB input
- Built-In navigation (See “Horizon NavMate Introduction” on page 59.)
- Bluetooth ready (with purchase of BTM10) providing hands-free profile for safety/convenience and A2DP profile for streaming music from a PDA/ phone
- 40-key infrared remote control
- Two composite video output for additional screens
- Front panel 3.5mm audio/video input
- Rear USB input - connect to MediaLink USB for extended USB and 1/8” AV input
- Three-band tone control (Bass, Mid and Treble) with 11 preset EQ curves
- Treble, Mid selectable center frequency with quasi parametric bass EQ
- Front panel A/V aux input for portable media devices
- Front, rear and subwoofer line output
- Programmable volume control
- Rear camera input (normal and mirror image view)
- Touch screen calibration mode
- 2VRMS line output - all channels
- Rotary encoder volume control
- SWC interface – compatible with PAC adapter SWI-PS steering wheel control interface, sold separately

# OPTIONAL EQUIPMENT

- **BTM10**
  Before you can connect to a Bluetooth enabled device, you must purchase and install the Jensen BTM10.
- **Bluetooth Phone**
  See “Bluetooth Operation” on page 42.
- **Rear Camera**
  The VM9424 is "camera ready." Before accessing any camera features, you must purchase and install a rear video camera. Once the rear camera is connected and operating properly, the CAMERA source mode will become active.

# WARNINGS

***WARNING! Never install this unit where operation and viewing could interfere with safe driving conditions.***

***WARNING! To reduce the risk of a traffic accident (except when using for rear view video camera) never use the video display function while driving the vehicle. This is a violation of federal law.***

***WARNING! Never disassemble or adjust the unit.***

***WARNING! To prevent injury from shock or fire, never expose this unit to moisture or water.***

***WARNING! Never use irregular discs.***

***WARNING! The monitor employs an automatic motorized mechanism. To prevent damage to the core mechanism, please do not push, pull or swivel the monitor manually.***

# CONTROLS AND INDICATORS

***1. Reset***

Press to reset system settings to factory default (except the password and parental lock setting).

***2. Touch Display***

***3. Disc Slot***

***4. NAV***

Press to access the navigation interface (see “Horizon NavMate Introduction” on page 59).

***5. VOL Rotary Encoder***

Rotate to adjust the volume from 0-40.

*Press and hold* to access the EQ menu to select a preset EQ level or adjust individual audio settings.

Press to activate the MUTE function and silence the receiver. Press again to resume previous audio level.

Rotate to adjust the brightness level when “Picture Menu” is visible.

***6. Eject***

Press to eject a disc.

*Press and hold* to reset core mechanism position.

***7. SD Card Input***

Insert an SD/MMC card (up to 8 GB) for playback of music/video files.

***8. 3.5mm A/V Input***

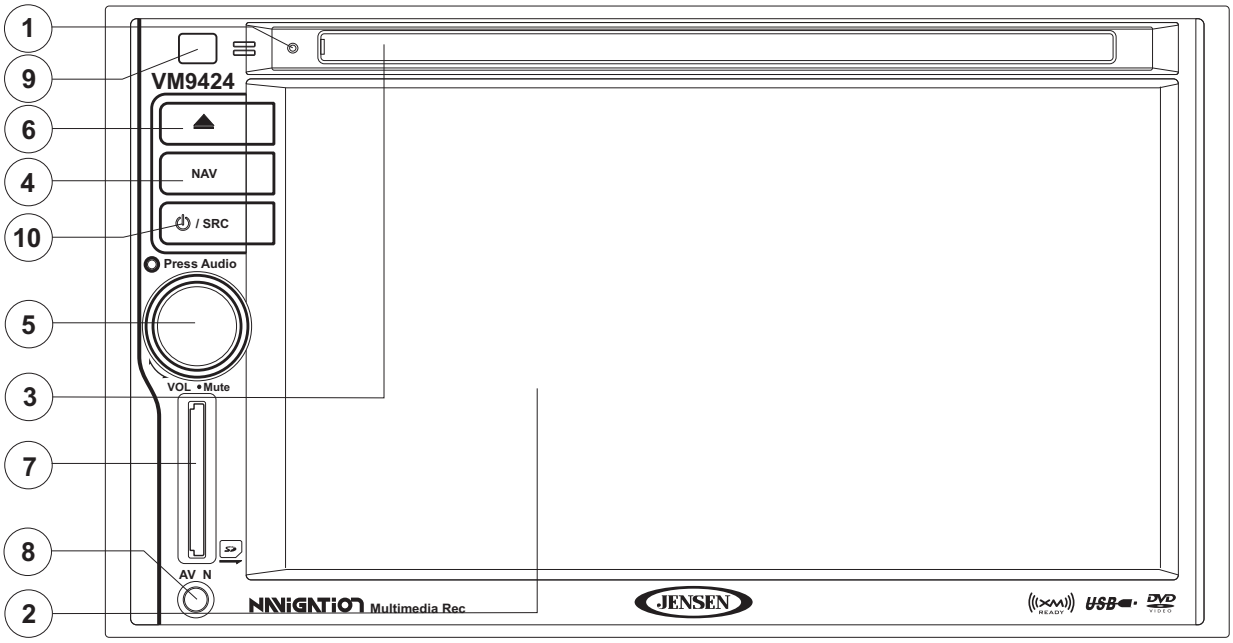
Attach a compatible A/V device.

***9. IR Remote Control Receiver***

***10. SRC/ ⏻ (power)***

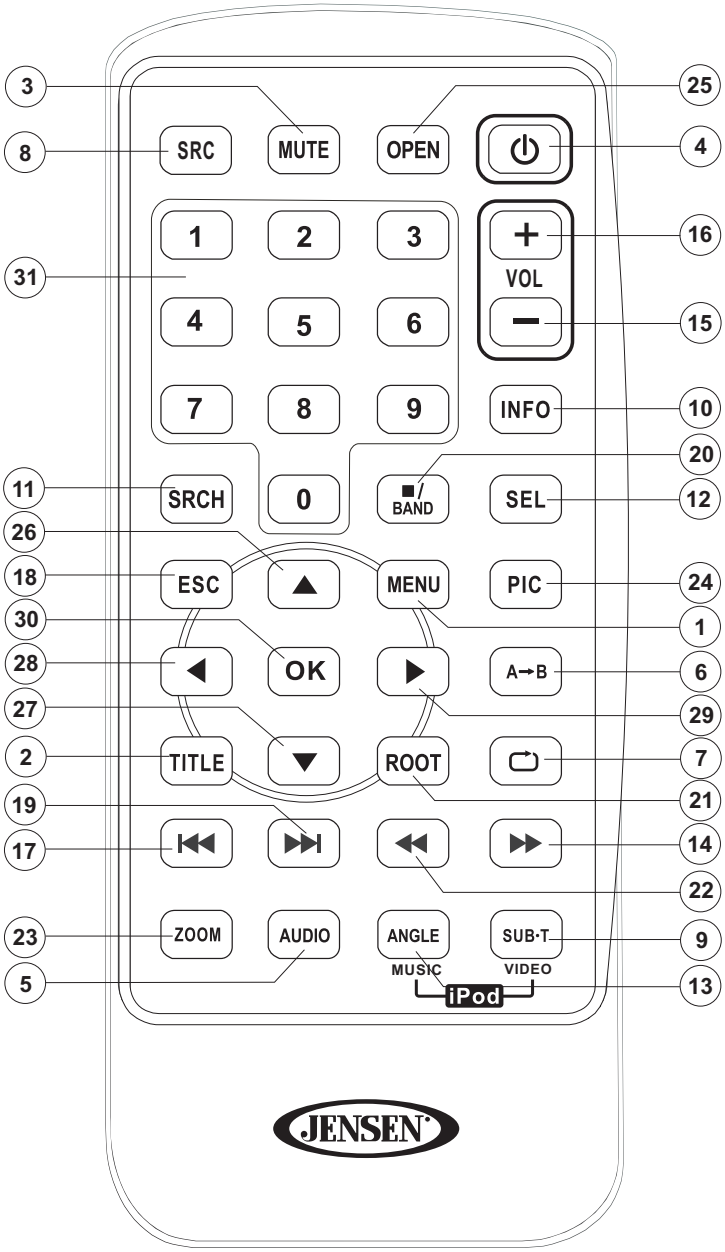
Press to turn the unit on. *Press and hold* to turn the unit off.

When on, press to select source or return to “Source” screen.


1
9
6
4
10
5
3
7
8
2
VM9424
NAV
/ SRC
Press Audio
VOL •Mute
AV_N
Multimedia Rec
JENSEN

# REMOTE CONTROL

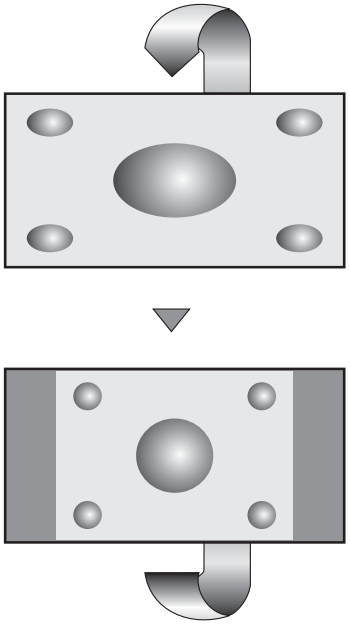
See remote control tables in various sections for button functions.



# USING THE TFT MONITOR

## Aspect Ratio

Press the **WIDE** button (4) on the monitor to adjust the aspect ratio as follows:



FULL
The entire screen is extended horizontally to the aspect ratio of 16 to 9. The extension ratio is the same at any point.

NORMAL
The conventional display image has a 4 to 3 ratio of horizontal to vertical, leaving a blank area on the right and left sides of the display.

STANDBY
Screen becomes black. Touch screen to resume.

## Picture Adjustment

To adjust monitor display settings, perform  he following steps:

1. Press the **PIC** button (24) on the remote control to view the “Picture Menu”.
2. Rotate the **VOL** button (5) on the front panel to adjust the brightness level from 0 (least bright) to 20 (most bright).
3. Wait 5 seconds, or press the **PIC** button (24) on the remote control to exit the picture menu.

## Parking Brake Inhibit

When the pink "PARKING" wire is connected to the vehicle Parking Brake circuit, the front TFT monitor will display video when  he Parking Brake is engaged. (When the pink wire is grounded via the Parking Brake circuit, video will be displayed.)

# OPERATING INSTRUCTIONS

## Power On / Off

Press the **SRC/**⏻ button (10) on the unit (or the ⏻ button (4) on the remote control) to turn the unit on. The buttons on the front of the unit light up.

*Press and hold* the ⏻ button to power off the unit.

## Remote Control Functions

**Table 1: Common Remote Control Functions**

| | |
|---|---|
| **SRC** | Select playing source |
| **MUTE** | Toggle audio output on/off |
| **POWER/⏻** | Turns the power on/off |
| **◀ / ▶ / ▲ / ▼** | Menu Navigation |
| **VOL -** | Decreases volume |
| **VOL +** | Increases volume |
| **PIC** | View PICTURE MENU to adjust brightness |
| **MENU** | View SOURCE menu |
| **SEL** | Access equalizer menu |

## Audible Beep Confirmation

An audible beep tone confirms each function selection. The Beep tone can be disabled through the Setup menu.

## Mute/Line Mute

Press the **VOL/MUTE** button (5) on the front panel or the **MUTE** button (3) on the remote control to mute the volume from the unit. Press the rotary encoder button again to restore the volume. Adjusting the volume or using any of the audio setup features cancels the mute function.

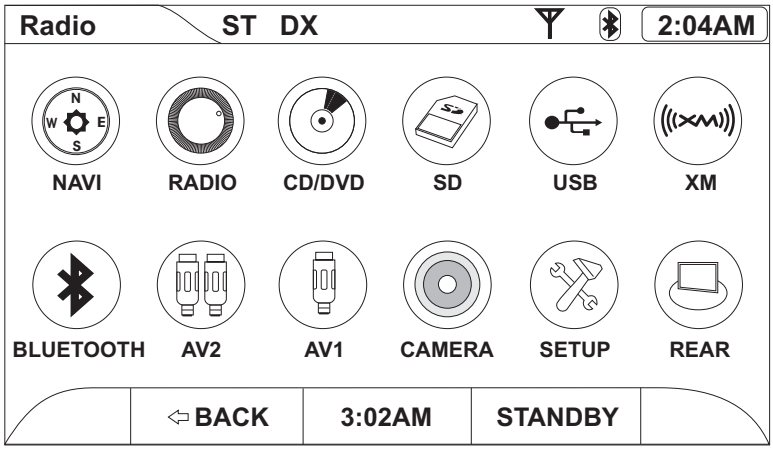
## Playing Source Selection

***Source Button (SRC)***

Press the **SRC** button on the front panel (10) or remote control (8) to change between available audio playing sources in the following order: NAVI, RADIO, DISC, SD, USB, XM, BLUETOOTH, AV2, AV1, CAMERA, REAR.

### *Source Menu*

You can also use  he touch screen to change the source through the Source menu. To access the Source menu, touch the top left corner of the screen or press the **SRC** button on the front panel (10) or remote control (8).

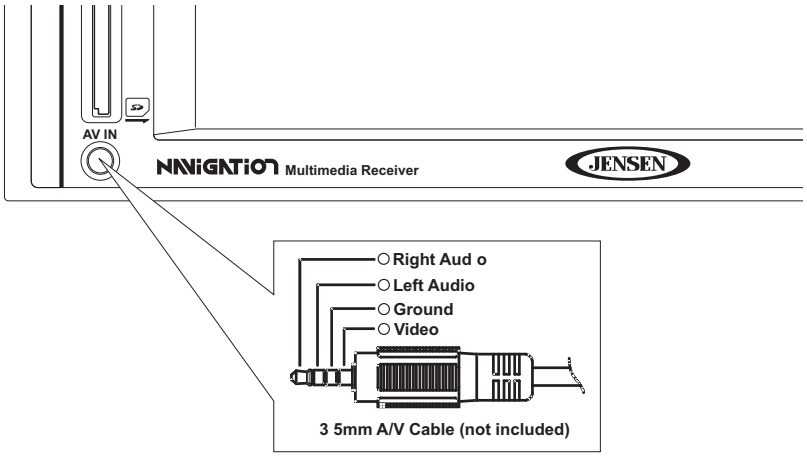



Touch the NAVI, RADIO, CD/DVD, SD, USB, XM, BLUETOOTH, AV2, AV1, CAMERA, or REAR button to select the corresponding source. Touch SETUP to view the system Setup menu.

***NOTE: If an iPod is attached to the USB port, "iPod" appears instead of the text "AV2" and the USB icon appears greyed out.***

### *External Devices*

External peripheral devices, including a game console, camcorder, navigation unit, iPod, Zune, etc. can be connected to this unit via RCA output using an A/V Media Adapter Cable (included).




Connect the external device to the A/V Media Adapter Cable and then plug the cable into the **AV IN** connector (8) on the front of the radio. Select "AV1" mode

to access auxiliary devices. You cannot directly control external devices connected to the **AV IN** connector. For information regarding the use of USB devices, see “Accessing a USB Device” on page 28.

## Volume Adjustment

To increase or decrease the volume level, turn the **VOL** rotary encoder (5) on the front panel or press the **VOL-/+** buttons (15, 16) on remote control. When the volume level reaches “0” or “40”, a beep sounds, indicating that the adjustment limit has been reached. The LCD or TFT screen displays the volume level for 3 seconds.

## Audio Control Menu

The Audio Control feature allows you to easily adjust your audio system to meet  he acoustical characteristics of your vehicle, which vary depending on the type of vehicle and its measurements. Proper setting of the Fader and Balance boosts the effects of the cabin equalizer.

Press the button on the screen, the **VOL** rotary encoder (5) on the front of the unit, or the **SEL** button (12) on the remote control to display the audio menu.

- Use the touch screen ◀ / ▶ buttons to adjust the settings for an audio feature.
- To adjust an audio feature using the remote control, perform the following steps:
  a. Press the ▲ / ▼ buttons (26, 27) to highlight the audio feature to be adjusted.
  b. Press  he ◀ / ▶ buttons (28, 29) to adjust the selected feature to the desired setting.

**Table 2: Audio Adjustments**

| Audio Function | Adjustable Preset | Audio Function | Adjustable Range |
|---|---|---|---|
| **EQ SETTING** | User | **TREBLE** | -7 to 7 |
| | Flat | **MIDDLE** | -7 to 7 |
| | Jazz | **BASS** | -7 to 7 |
| | Pop | **BALANCE** | -9 (Left) to 9 (Right) |
| | Classical | **FAD** | -9 (Rear) to 9 (Front) |
| | Rock | **SUBWOOFER** | -7 to 7 |
| | News | **MIDDLE** | -7 to 7 |
| | Urban | | |
| | Rave | | |
| | Movie | | |
| | Techno | | |

***NOTE: The EQ SETTING mode will automatically change to "USER" when individual audio functions are adjusted.***

The Audio menu will automatically exit after a few seconds of inactivity. To exit quickly, touch the top left corner of the screen or press the **VOL** rotary encoder (5).

## System Reset

To correct a system halt or other illegal operation, use the tip of a pen to press the reset button (1) located on the front bottom-right corner of the unit. After a system reset, the unit restores all factory default settings.

[RESET] Button

***NOTE: If the unit is reset while a DVD is playing, the DVD resumes play once the reset is complete.***

## Steering Wheel Control (SWC)

The VM9424 is compatible with the PAC (Pacific Accessory Corporation) steering wheel control adapter SWI-PS. A 3.5mm female connector (labeled “SWC Interface”) on the back of the head unit allows connectivity to the PAC adapter. Please refer to the instructions included with the PAC adapter for detailed installation information.

### *SWC Functions*

The following controls are available for most vehicles:

1. Vol Down
2. Vol Up
3. Mute
4. Seek Down / Previous Track / ** Preset Down
5. Seek Up / Next Track / ** Preset Up
6. SRC (Source)
7. ** Select
8. ** Select
9. Band

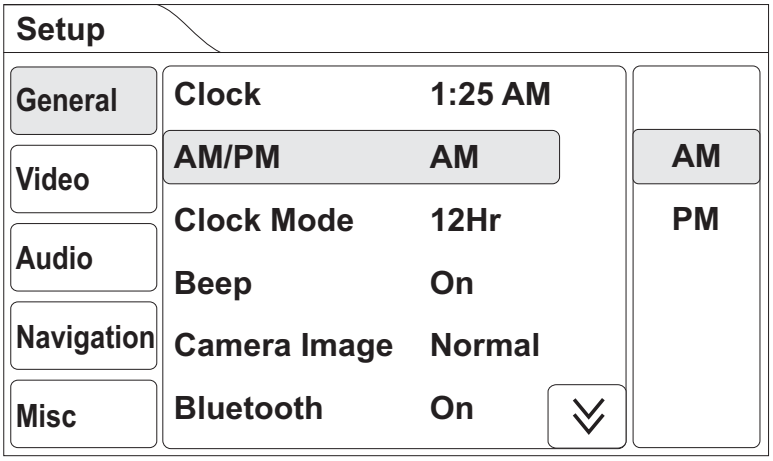
** If additional steering wheel control buttons are available on the vehicle, function 7 / 8 may be assigned the "Select" feature. This feature / function may not be available on some vehicles.

### *Select Operation*

If "Select" (function 7 or 8) is held down and function 4 is pressed momentarily, Preset Up will be selected. If "Select" (function 7 or 8) is held down and function 5 is pressed momentarily, Preset Down will be selected.

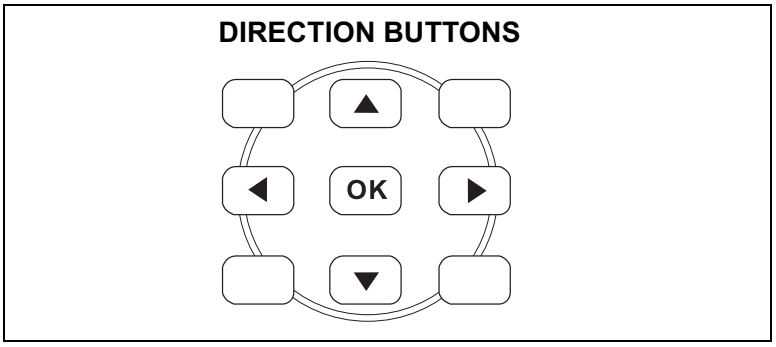
# SETUP MENU

To access system settings, press the **MENU** button (1) on the remote control or touch the top left corner of the screen where the current source is indicated, and then touch the on-screen **SETUP** button. The “Setup” menu appears, with the current sub-menu highlighted in yellow.




## Accessing Menu Items

Touch the sub-menu name, press the ◀, ▶, ▲ or ▼ direc ion buttons (28, 29, 26, 27) on the remote control to select a sub-menu (Language, Audio, RDS, etc.).




The features available for adjustment under the highlighted sub-menu option will appear in the center of  he screen.

## Adjusting a Feature

1. Use the touchscreen or press the ▲ / ▼ buttons (26, 27) on the remote control to highlight the audio feature to be adjusted.
2. Use the touchscreen or press the **OK** button (30) on the remote control to view submenu choices.
3. Use the touchscreen or press the ▲ / ▼ buttons (26, 27) on the remote control to highlight the audio feature to be adjusted.
4. Enter the option field for the feature you want to adjust by using the touchscreen or pressing the **OK** button (30) on the remote control.
5. Select a new value by using the touchscreen or pressing the ▲ / ▼ buttons.
6. Press **OK** to confirm.

***General Sub-menu Features***

| Setting | Options | Function |
|---|---|---|
| Clock | (HH:MM) | Clock appears in the top right corner of the screen and on the LCD screen during certain operations. NOTE: The AM/PM indication will change as you continue to adjust the hour past 12. |
| AM/PM | AM | Set AM or PM when using 12Hr clock mode. |
| | PM | |
| Clock Mode | 12Hr | Clock displays 12 hour time using AM and PM. |
| | 24Hr | Clock displays 24 hour time up to 23:59. |
| Beep | Off | No beep sounds. |
| | On | When turned on, an audible beep tone confirms each function selection. |
| Camera Image | Normal | Reverse the camera image as if looking through a rear-view mirror. |
| | Mirror | |
| Bluetooth | On | Connect the last active mobile phone by touching the Pair icon when disconnected. |
| | Off | Automatically connect when your paired phone is in range. |
| Auto Dimmer | On | Select to automatically dim screen at dusk. |
| | Off | |
| Start Volume | Last | Set radio volume at turn-on to last volume level or choose “adjust” to turn on at a pre-defined level. |
| | Adjust | |
| Start Vol. Adjust | 40-0 | Pre-defined automatic turn-on volume level. |
| Version | View radio software version information. | |

### *Video Sub-menu Features*

| Setting | Options | Function |
|---|---|---|
| TV Shape | 16 9 | |
| | 4:3 | |
| Aux IN | Auto | The color signal output is switched automatically based on the current video input signal - NTSC or PAL. |
| | PAL | The color signals are output in the standard PAL format. |
| | NTSC | The color signals are output in the standard NTSC format. |
| Brightness | 10 to (-10) | |

If the monitor is in display mode, the monitor automatically switches to CAMERA mode upon reverse driving. When the reverse driving stops, the monitor return to its original input mode.

### *Audio Sub-menu Features*

| Setting | Options | Function |
|---|---|---|
| Bass Freq | 60Hz | Adjust Bass boost/cut frequency. Range of adjustment is +/- 12 dB. |
| | 80Hz | |
| | 100Hz | |
| | 120Hz | |
| Middle Freq | 500Hz | Adjust Middle boost/cut frequency. Range of adjustment is +/ - 12 dB. |
| | 1kHz | |
| | 1.5kHz | |
| | 2.5kHz | |
| Treble Freq | 8kHz | Adjust Treble boost/cut frequency. Range of adjustment is +/ - 12 dB. |
| | 10kHz | |
| | 12 5kHz | |
| | 15khz | |
| Subfilter | 80Hz | Select a crossover frequency to set a cut-off frequency for the subwoofer's LPF (low-pass filter). |
| | 100Hz | |
| | 120Hz | |
| | 140Hz | |
| | 160Hz | |
| Bass Q-Factor | Wide 1 | Adjust the "Q" or width of the bass control of the Bass Freq selected. |
| | Wide 2 | |
| | Narrow 1 | |
| | Narrow 2 | |

| Setting | Options | Function |
|---|---|---|
| iPod Gain | -7 to 7 | Increase or reduce the relative volume (Gain). |
| Auxin Gain | -7 to 7 | Increase or reduce the relative volume (Gain). |
| SAT Gain | -7 to 7 | Increase or reduce the relative volume (Gain). |
| DISC/ USB/SD Gain | -7 to 7 | Increase or reduce the relative volume (Gain). |
| Tuner Gain | -7 to 7 | Increase or reduce the relative volume (Gain). |

### *Navigation Sub-menu Features*

| Setting | Options | Function |
|---|---|---|
| GPS Time | Ignore | Use GPS satellite time. |
| | Sync | Use the radio set time. |
| Time Zone | NFT | Select navigation time zone. |
| | Atlantic | |
| | Eastern | |
| | Central | |
| | Mountain | |
| | Pacific | |
| | Alaska | |
| DST | Off | Turn daylight savings mode on/off. |
| | On | |

### *Misc Sub-menu Features*

The DVD system has a built-in parental lock feature to prevent unauthorized persons from viewing restricted disc content. By default, the rating system is unlocked. Once setup, the parental lock is released only by entering the correct password. Once the password is entered, parental control rating is available for setup.

| Setting | Options | Function |
|---|---|---|
| TS Calibrate | No | After selecting “Yes,” a crosshair ┼ appears in a corner quadrant of the screen. To begin calibration, press and hold the crosshair for one second until it moves to the next quadrant. Continue for each quadrant until the calibration is completed. |
| | Yes | |
| Set Password | _ _ _ _ | Enter a 4-digit password to activate the “Parental Control” feature. |

| Setting | Options | Function |
|---|---|---|
| Parental Control | 1. Kid Safe | Select the appropriate rating level for the intended audience.<br><br>You may override higher ratings by using your password. |
| | 2. G | |
| | 3. PG | |
| | 4. PG-13 | |
| | 5. PG-R | |
| | 6. R | |
| | 7. NC-17 | |
| | 8. Adult | |
| Factory Default | No | Select “Yes” to restore the factory default settings for the *Rating system only.* |

To reset the password, access the “Set Password” option and enter the current password to unlock the field. Access the “Set Password” again once unlocked and enter a new password. You must enter the same password twice to confirm.

***NOTE: Record the password and keep it in a safe place for future reference. The rating for each disc is marked on the disc, disc packing, or documentation. If the rating is not available on the disc, the parental lock feature is unavailable. Some discs restrict only portions of the disc and the appropriate content will play. For details, please refer to the disc description.***

## Exiting the System Setup Menu

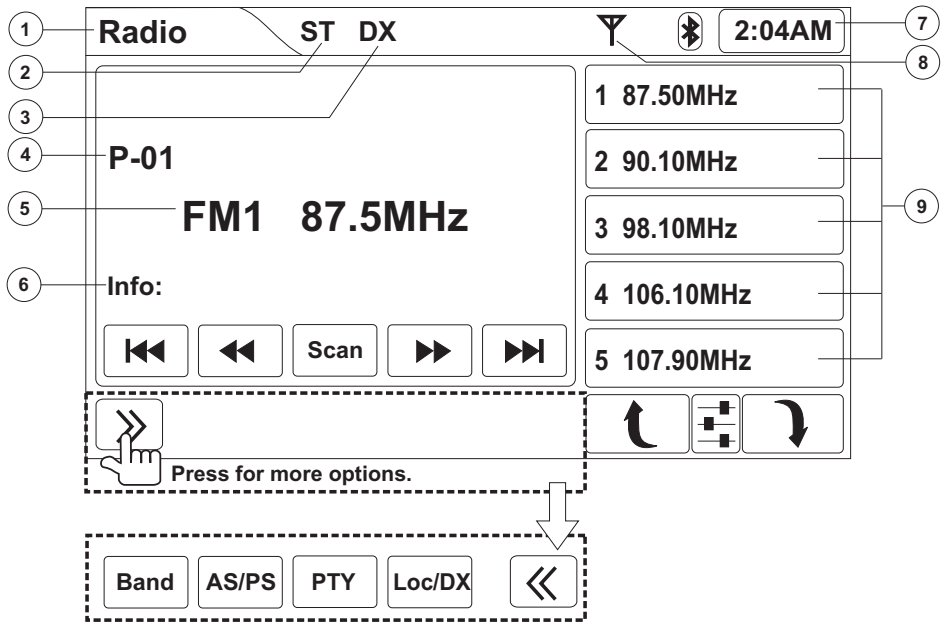
To exit setup mode and resume normal playback, press the **SETUP** button (31) on the remote control or touch the “Setup” title in the top left corner of the screen.

# TUNER OPERATION

## Accessing Radio Tuner Mode

To access the “Radio” screen, press the **SRC** button (10) on the front panel or touch the top left corner of the screen to access the Source menu, and then touch the “RADIO” icon. You can also press the **SRC** button (8) on the remote control until “RADIO” appears at the top of the screen. The on-screen indicators and touch key areas for radio mode are outlined below.

## Tuner TFT Display




## Indicators/Controls

1. (a) Current source
   (b) Touch to view SOURCE MENU and select a new source
2. Mono/stereo indicator
3. Local/distant indicator
4. Preset channel number
5. Band and station identification
6. RDS information (if available)
7. Clock
8. Stereo signal strength indicator
9. Preset channels (touch to listen)

## Touch Buttons

- |◀◀: Seek tuning lower
- ◀◀: Incremental tuning lower
- **Scan**: Scan the AM or FM band for a preview of available stations in your area
- ▶▶: Incremental tuning higher
- ▶▶|: Seek tuning higher
- **Band**: Select band
- **AS/PS**: Press once for preset station scan or *press and hold* to automatically store six strong stations in the current band
- **PTY**: View program type categories on right side of the screen (touch program type desired to scan for corresponding stations)
- **Loc/DX**: Toggle local/distant station reception
- » / «: Expand/collapse additional menu options
- ↰ / ↱: Page up/page down
- ⇶: Equalizer adjustment screen
- ⓑ: Bluetoo h access (when device is already paired)

**Table 3: Tuner Remote Control Functions**

| | |
|---|---|
| ▲ / ▼ | Navigate preset station list |
| ◀ / ▶ | Page down/up |
| ◀◀ | Incremental tuning lower |
| ▶▶ | Incremental tuning higher |
| \|◀◀ | Seek tuning lower |
| ▶▶\| | Seek tuning higher |
| **1-6** | Select preset channel in for current band |
| **■/ BAND** | Select FM/AM band |
| **SEL** | Access equalizer menu |

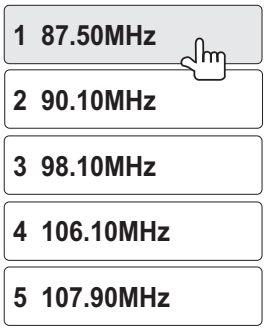
## Selecting FM/AM Band

Press the **BAND** button on the screen, or press the **■/BAND** button on the remote control (20) to select one of the following bands: FM1, FM2, FM3, AM1, and AM2.

***NOTE: See "Controls and Indicators" on page 5 for the location of control panel buttons.***

## Using Preset Stations

Six numbered preset buttons store and recall stations for each band. All six stored stations (P1-P6) for the current band appear on the screen.




***Storing a Station***

1. Select a band (if needed), then select a station.
2. *Press and hold* the on-screen preset channel location (9) on the right side of the screen to store the current station.
3. The preset number and station appears highlighted.

***NOTE: Press the ❯ button to view the 6th preset channel.***

***Recalling a Station***

1. Select a band (if needed).
2. Press an on-screen preset channel location (9) to select the corresponding stored station.

## Auto Store/Preset Scan (AS/PS)

***Preset Scan (PS)***

To hear a preview of stored preset stations:

1. Press the on-screen ≫ button to view the second row of buttons.
2. Press the on-screen **AS**/**PS** button.
3. Press again to stop preset scan.

***Auto Store (AS)***

To select six strong stations and store them in the current band:

1. Select a band (if needed).
2. Press the on-screen ≫ button to view the second row of buttons.
3. *Press and hold* the on-screen **AS/PS** button to activate the Auto Store function. The new stations replace stations already stored in that band.

## Local Radio Station Seeking (LOC)

When the Local function is on, only radio stations with a strong local radio signal are played. To activate the Local function in AM/FM tuner mode:

1. Press the on-screen ≫ button to view the second row of buttons.
2. Press the **Loc/DX** button to toggle Loc (local) and Dx (distant) tuning modes.

# DVD/VCD VIDEO OPERATION

***NOTE: When properly installed, DVD video cannot be displayed on the main TFT screen unless the parking brake is applied. If you attempt to play a DVD while the vehicle is moving, the TFT screen displays "PARKING" with a blue background. Rear zone video outputs and rear video screens, if applicable, will operate normally.***

## Inserting a Disc

Upon inserting a DVD disc, DVD mode is entered and disc play begins.

***NOTE: If Parental Lock (Rating) is activated and the disc inserted is not authorized, the 4-digit code must be entered and/or the disc must be authorized (see "To reset the password, access the "Set Password" option and enter the current password to unlock the field. Access the "Set Password" again once unlocked and enter a new password. You must enter the same password twice to confirm." on page 18).***

You cannot insert a disc if there is already a disc in the unit or if the power is off.

***NOTE: DVD-R and DVD-RW will not play unless the recording session is finalized and the DVD is closed.***

## Ejecting a Disc

Press the ⏏ button (6) to eject the disc. The unit automatically reverts to Tuner mode. You may eject a disc with the unit powered off. The unit will remain off after the disc is ejected.

## Resetting the Loading Mechanism

If the disc loads abnormally or an abnormal core mechanism operation occurs, *press and hold* the ⏏ button (6) to reset the loading mechanism. Normal operation resumes.

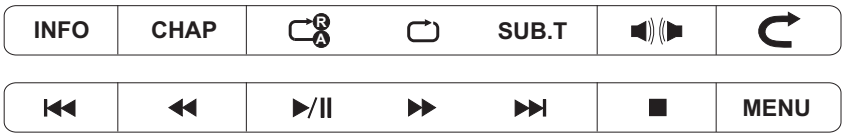
## Accessing DVD Mode

To switch to DVD mode when a disc is already inserted, press the **SRC** button (10) on the front panel or remote control (8).

***NOTE: See "Controls and Indicators" on page 5 for the location of control panel buttons.***

## DVD Playback On-Screen Controls

To access the on-screen controls, touch the screen while a DVD is playing. The following on-screen controls appear at the top and bottom of the screen:




- **INFO**: View on-screen playback information
- **CHAP**: Access direct entry screen
- : (x1) Repeat section start point A, (x2) repeat section end point B, (x3) stop repeat section
- : Repeat
  - DVD: (x1) Repeat Chapter, (x2) Repeat Title, (x3) Repeat Off
  - VCD with PBC off: (x1) Repeat Single (x2) Repeat All (x3) Repeat Off
- **SUB.T**: Select subtitle language (if available)
- : Select audio language (if available)
- : Exit DVD mode and view Source menu
- |◀◀: Play previous chapter
- ◀◀: Fast reverse (x2 → x4 → x8 → x16 → Play)
- ▶/||: Play/pause
- ▶▶: Fast Forward (x2 → x4 → x8 → x16 → Play)
- ▶▶|: Play next chapter
- ■: Stop
- **MENU**: View DVD menu

## Table 4: DVD/VCD Remote Control Functions

| Button | Function | |
|---|---|---|
| **Name** | **DVD** | **VCD** |
| **ROOT** | Access DVD menu. | Turns on/off PBC when playing VCD |
| **TITLE** | Enter the title menu of the disc | |
| **AUDIO** | Select alternate audio language | Select Left Channel, Right Channel, Mix or and Stereo output |
| **A → B** | Repeat playback from time frame A to time frame B | Repeat playback from time frame A to time frame B |
| ↻ | (x1) Repeat Chapter, (x2) Repeat Title, (x3) Repeat Off | (x1) Repeat Single (x2) Repeat All (x3) Repeat Off (with PBC Off) |
| ■ **/ BAND** | Stop playback | Stop playback |
| ▲, ▼, ◀, ▶ | Navigate on-screen menu | Navigate on-screen menu |
| **OK** | Resume playback | Resume playback |
| \|◀◀ | Play previous chapter | Play previous chapter |
| ▶▶\| | Play next chapter | Play next chapter |
| ◀◀ | Fast reverse (x2 → x4 → x8 → x16 → Play) | Fast reverse (x2 → x4 → x8 → x16 → Play) |
| ▶▶ | Fast forward (x2 → x4 → x8 → x16 → Play) | Fast forward (x2 → x4 → x8 → x16 → Play) |
| **ZOOM** | Zoom picture (+1 → +2 → +3 → OFF) | Zoom picture (+1 → +2 → +3 → OFF) |
| **INFO** | View on-screen playback information | View on-screen playback information |
| **1-9, 0** (Keypad) | Enter digits for direct entry | Enter digits for direct entry |
| **SRCH** | Access direct entry screen | Access direct entry screen |
| **SUB-T** | Select subtitle language | |
| **ANGLE** | Play alternate angles if DVD contains scenes shot simultaneously from different angles | |

## Accessing the DVD Menu

Press the **MENU** button (1) on the remote control to recall the main DVD menu. Use the direc ional (arrow) buttons on the remote control to select a title from the menu or touch the title on screen.

For DVD's with more than one title, press the **TITLE** button (2) on the remote control to select a different title for playback. Press the **OK** button (30) on the remote control to confirm your selection and begin playback. You can also select a title using the touch screen.

## Sectional Repeat Function (A-B)

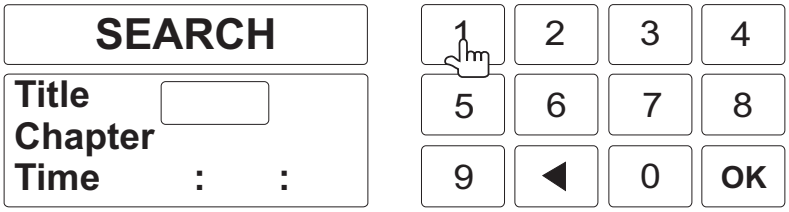
Use the A-B function to define a specific area of a disc to repeat.

- Press the **A→B** button (6) on the remote control (or the A-B button on screen) to set the start point (A) of the repeated section.
- Press the **A→B** button again once you reach the desired end point (B) of the repeated section. The selected portion of the DVD will now repeat continuously.
- Press the **A→B** button again to cancel the A-B section repeat.

## Direct Search

During DVD or VCD playback, perform the following steps to use the GOTO feature to access a specific location on a disc:

1. Press the **SRCH** button (11) on remote control to access the "Search" screen.




2. Use the touch screen or press the ▼ or ▲ buttons (27, 26) on the remote control to select a category.
   - **Title** – Go to specific title
   - **Chapter** – Go to specific chapter
   - **Time** – Go to specific time in current title

***NOTE: Only the Track and Time fields are available when searching VCD discs.***

3. Enter a time into the field using the on-screen keypad or the numeric keypad (31) on the remote control. Press the ◀ button to backspace.
4. Press the **OK** button on screen or on the remote control (30) to go to the specified location on the disc.

## VCD PBC - Play Back Control

For VCDs with play back functionality, play back control (PBC) provides additional controls for VCD playback.

Press the **ROOT** button (21) on the remote control to toggle the PBC function "On"/"Off". Once PBC is on, playback starts from track one of the play list.

***NOTE: When PBC is activated, fast forward/reverse, and previous/next track are available. Repeat is not available.***

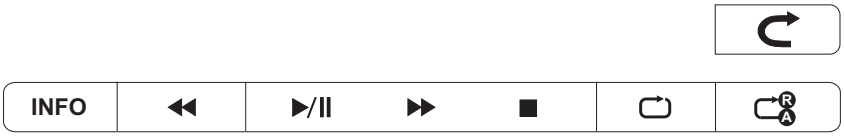
***NOTE: For VCD play, the repeat function is not available if PBC is on.***

## Playback Information

During DVD and VCD playback, press the **INFO** button (10) on the remote control to display playback information on the screen, including the media playing and current playback time.

## MPEG Playback On-Screen Controls

To access the on-screen controls, touch the screen while a MPEG file is playing. The following on-screen controls appear at the top and bottom of the screen:




- **INFO**: View on-screen playback information
- : (x1) Repeat section start point A, (x2) repeat section end point B, (x3) stop repeat section
- : (x1) Repeat Chapter, (x2) Repeat Title, (x3) Repeat Off
- : Exit DVD mode and view Source menu
- ◀◀: Fast reverse (x2 → x4 → x8 → x16 → Play)
- ▶/||: Play/pause
- ▶▶: Fast Forward (x2 → x4 → x8 → x16 → Play)
- ■: Stop

# General Disc Information

**Table 5: Disc Properties**

| Symbol | 12cm Disc Properties | Max Play Time |
|---|---|---|
| DVD VIDEO<br>DVD VIDEO | Single side single layer (DVD-5)<br>Single side double layer (DVD-9)<br>Double side single layer (DVD-10)<br>Double side double layer (DVD-18) | (MPEG 2 Method)<br>133 minutes<br>242 minutes<br>266 minutes<br>484 minutes |
| COMPACT disc DIGITAL VIDEO | Single side single layer (VCD) | (MPEG 1 Method)<br>74 minutes |
| COMPACT disc DIGITAL AUDIO TEXT | Single side single layer | 74 minutes |

**Table 6: Disc Symbols**

| Symbol | Meaning |
|---|---|
| 8 | Number of voice languages recorded. The number inside the icon indicates the number languages on the disc (maximum of 8). |
| 32 | Number of subtitle languages available on the disc (maximum of 32). |
| 9 | Number of angles provided (maximum of 9). |
| 16:9 LB | Aspect ratios available. “LB” stands for Letter Box and “PS” stands for Pan/Scan. In the example on the left, the 16:9 video can be converted to Letter Box video. |
| ALL | Indicates the region code where the disc can be played.<br>• Region 1: USA, Canada, East Pacific Ocean Islands<br>• Region 2: Japan, Western Europe, Northern Europe, Egypt, South Africa, Middle East<br>• Region 3: Taiwan, Hong Kong, South Korea, Thailand, Indonesia, South-East Asia<br>• Region 4: Australia, New Zealand, Middle and South America, South Pacific Ocean Islands/Oceania<br>• Region 5: Russia, Mongolia, India, Middle Asia, Eastern Europe, North Korea, North Africa, North-West Asia<br>• Region 6: Mainland China<br>• ALL: All regions |

# CD/DVD/MP3 AUDIO OPERATION

Instructions for TFT control and Insert/Eject are the same for DVD and CD operation. Please see the DVD/Disc Video Operation section for information about these topics.

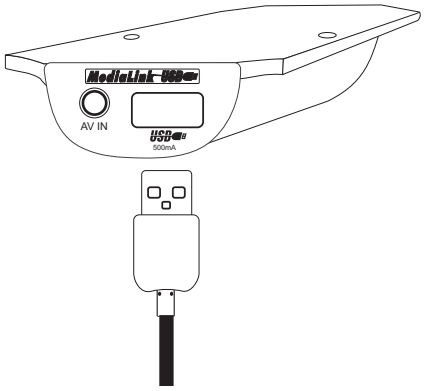
The VM9424 will play music or other audio files from the following disc media:

- CD-DA
- CD-R/RW
- DVD
- DVD+R/RW
- DVD-R/RW

***NOTE: See "MP3/WMA File Requirements" on page 33 for MP3 disc and file requirements.***

## Accessing a USB Device

1. Locate the MediaLink USB connector (it should be installed and routed to an accessible location during installation).



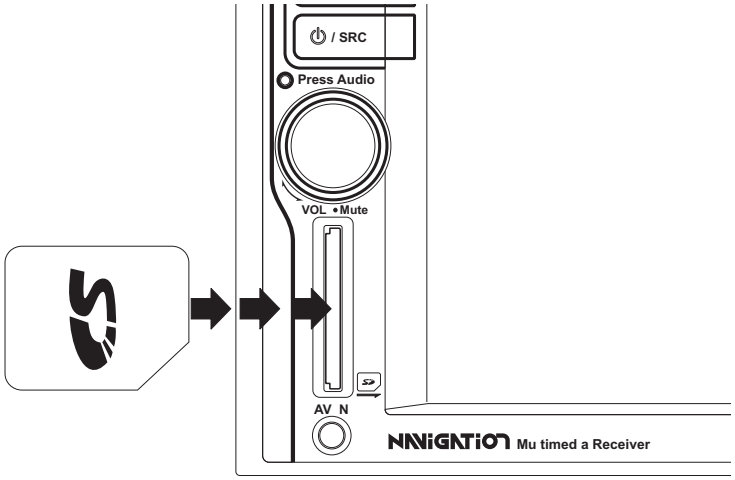

2. Insert the USB device into the USB connector.
3. Press the **SRC** button (10) on the front panel or touch the top left corner of the screen to access the Source menu, and then touch the "USB" icon. You can also press the **SRC** button (8) on the remote control until "Media-USB" appears at the top of the screen.

To remove the USB device, press the **SRC** button (10) on the front panel or remote control (8) to switch to another mode and then remove the USB device from the USB connector.

***NOTE: This unit supports iPod via USB and USB flash memory devices. Not all USB devices are supported.***

## Accessing an SD Card

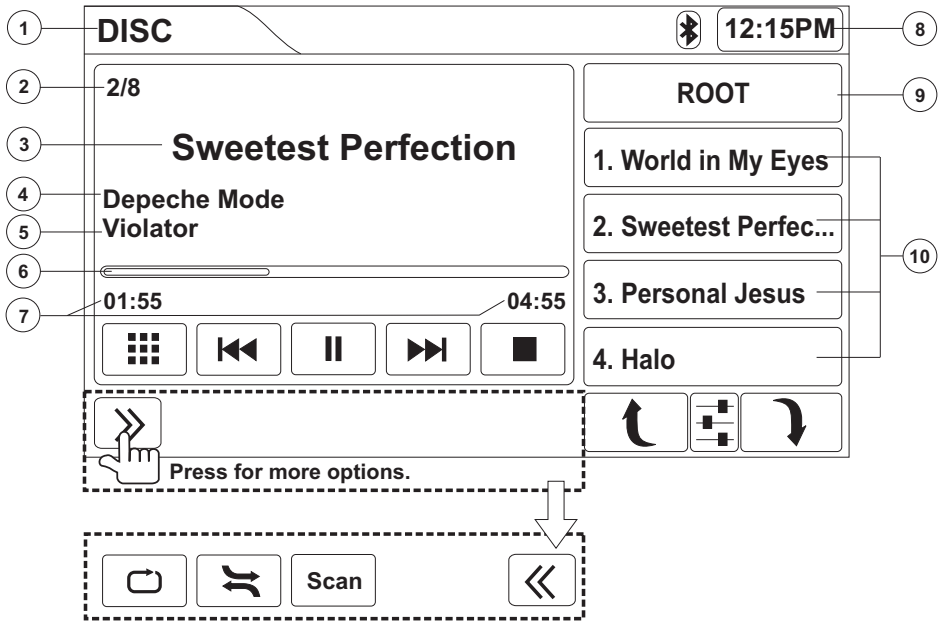
1. Locate the SD connector (7) on the front of the radio.
2. Insert the SD card into the SD connector.
3. Press he **SRC** button (10) on the front panel or touch the top left corner of the screen to access the Source menu, and then touch he “SD” icon. You can also press the **SRC** button (8) on the remote control until “Media-SD” appears at the top of the screen.




Before removing he SD card, change the radio to another source. To remove, press the edge of the card and release to disengage. Pull straight out to remove.

## Accessing Disc Mode

To access the DISC screen, press he **SRC** button (10) on he front panel or touch the top left corner of the screen to access the Source menu, and then touch the “CD/DVD” icon. You can also press the **SRC** button (8) on the remote control until “DISC” appears at the top of the screen. The on-screen indicators and touch key areas for CD/DVD/MP3 audio playback are outlined below:



## Indicators/Controls

1. (a) Current source
   (b) Touch to view “Source” menu and select a new source
2. Current track and total number of tracks on disc
3. Song title
4. Artist name (if available for MP3)
5. Album name (if available for MP3)
6. Playback progress indicator
7. Elapsed playing time/total playing time for current track
8. Clock
9. (a) Folder name (always ROOT for CD-DA and DVD)
   (b) Touch to return to previous folder level (if available for MP3)
10. Track numbers (touch to play)

## Touch Screen Buttons

- : Direct entry screen
- |◀◀: Previous track
- ▶ / ||: Play/pause
- ▶▶|: Next track
- ■: Stop
- : Repeat
  - CD/DVD: (x1) Repeat song, (x2) repeat all
  - MP3: (x1) Repeat song, (x2) repeat folder, (x3) repeat all
- : Random/shuffle all
- **Scan**: Scan the first ten seconds of each song on the disc
- 》/《: Expand/collapse additional menu options
- / : Page up/page down
- : Equalizer adjustment screen
- : Bluetooth access (when device is already paired)

***NOTE: CD-R and CD-RW will not play unless the disc recording session is finalized.***

**Table 7: CD/DVD/MP3 Audio Remote Control Functions**

| | |
|---|---|
| ↻ | Press once to repeat song, twice to repeat album |
| **A → B** | Repeat playback from time frame A to time frame B |
| ▲, ▼ | Up/down track list |
| ◀, ▶ | Page up/page down |
| **OK** | Select highlighted option or resume playback when paused/ stopped |
| \|◀◀ | Play previous track |
| ▶▶\| | Play next track |
| ◀◀ | Fast reverse (x2 → x4 → x8 → x16 → Play) |
| ▶▶ | Fast forward (x2 → x4 → x8 → x16 → Play) |
| ■ **/ BAND** | Stop (press **OK** to resume playback) |
| **1-9, 0** (Keypad) | Direct enter track number for playback |

## Direct Track Entry

To select a track directly, touch the ▦ button on screen to display the direct entry menu.

Enter he desired track using the on-screen number pad. Press **OK** to play the selected track number. To backspace, touch ←.

## MP3/WMA File Requirements

This player allows you to play back MP3 and WMA files recorded onto CD-R/RWs, DVD+R/RWs, and DVD-R/RWs. For CD-RW discs, please make sure it is formatted using the full method and not the quick method to prevent illegal disc operation.

Up to 1500 songs/files can be burned onto a disc for a DVD music mix. Do not exceed this number of songs/files or disc readability problems may occur.

***MP3 Format Compatibility***

The file naming formats listed below are compatible with this unit:

- ISO 9660 – file name: 12 characters, file extension: 3 characters
- ISO 9660 – file name: 31 characters, file extension: 3 characters
- Joliet – 64 characters

If the file or folder name does not conform to ISO 9660 file system standards, it may not be displayed or played back correctly. Use the following settings when compressing audio data for your MP3 disc:

- Transfer Bit Rate: 128kbps
- Sampling Frequency: 48kHz

When recording MP3 up to the maximum disc capacity, disable additional writing. For recording on an empty disc up to maximum disc capacity, use the "Disc at once" setting.

---

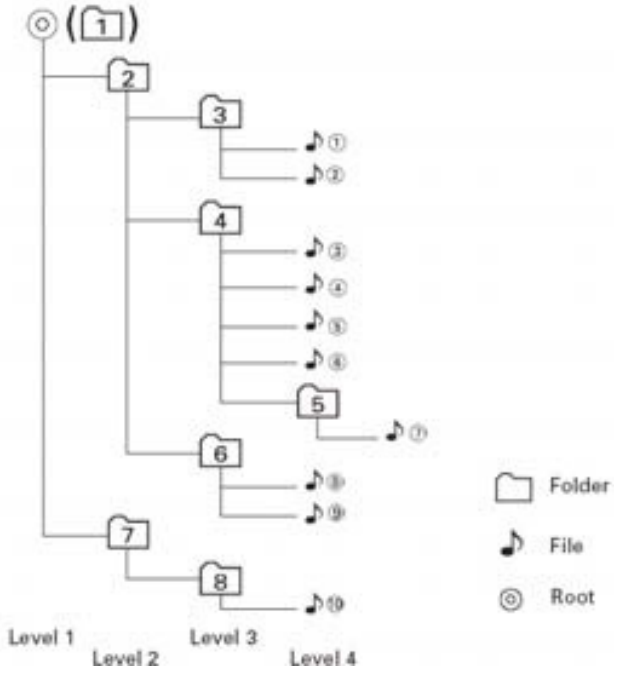
***NOTE: When burning MP3 / WMA files onto a DVD disc, use the 2X or 4X burning option, if available. This slower burning speed will help eliminate buffer errors and increase disc reading reliability. Also, use folders when burning large numbers of songs / files to a disc for easy music navigation. Select the "Disc at Once" option and close your disc.***

---

***MP3 Playing Order***

When selected for play, files and folders (Folder Search, File Search or Folder Select) are accessed in the order they were written by the CD writer. As a result, the order in which they are expected to be played may not match the order in which they are actually played. You may be able to set the order in which MP3/WMA files are to be played by writing them onto a medium such as a CD-R with their file names beginning with play sequence numbers such as "01" to "99".

For example, a medium with the following folder/file hierarchy is subject to Folder Search, File Search or Folder Select, as shown below.



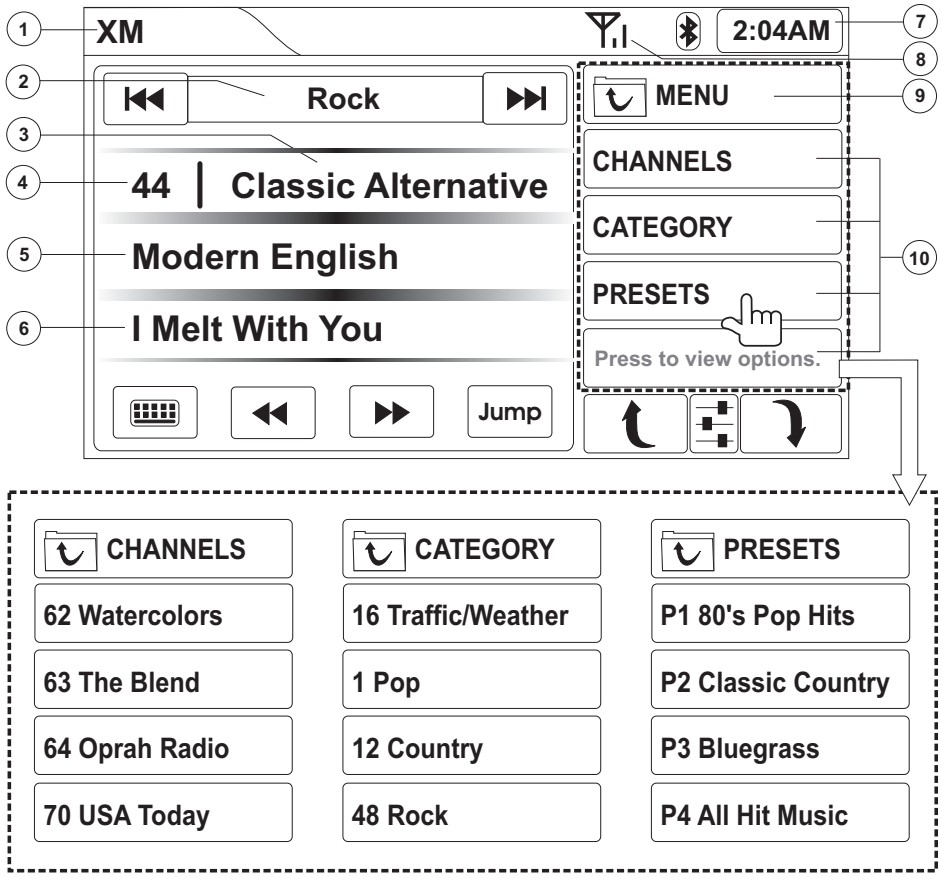

The VM9424 player will only recognize three folder levels and does not display folders containing only other folders. In the example above, the unit will display folders 3, 4, 6, and 8, but not 2 and 7 since they do not contain any tracks directly. Folder 5 is not recognized at all since it is at the fourth level.

# XM® RADIO OPERATION

***Listeners can subscribe to XM® Radio on the Web by visiting www.xmradio.com, or by calling (800) 967-2346. Customers should have their Radio ID ready (see "Displaying the Identification (ID) Code"). Customers can receive a limited number of free-to-air channels without activation.***

## Accessing XM Radio Mode

To access the XM screen, press the **SRC** button (10) on the front panel or touch the top left corner of the screen to access the Source menu, and then touch the XM icon. You can also press the **SRC** button (8) on the remote control until "XM" appears at the top of the screen. The on-screen indicators and touch key areas for XM Radio playback are outlined below.



## Indicators/Controls

1. (a) Current source
   (b) Touch to view “Source” menu and select a new source
2. Current category
3. Channel name
4. Channel number
5. Artist name
6. Song name
7. Clock
8. Signal strength indicator
9. Current MENU level (CHANNELS, CATEGORY, PRESETS)
10. (a) Menu options (touch to select)
    (b) Channels, categories, preset channels

## Touch Screen Buttons

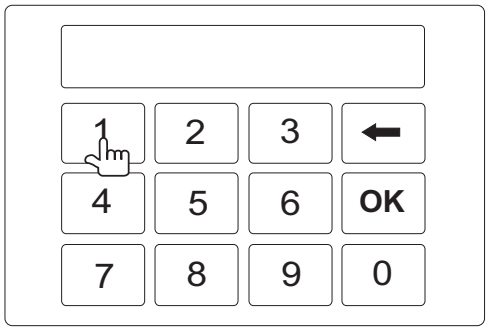
- |◀◀: Browse category
- ▶▶|: Browse category
- ⌨: Direct entry screen
- ◀◀: Previous channel
- ▶▶: Next channel
- **Jump**: Return to previous tuned channel
- ↰ / ↱: Page up/page down
- ⇶: Equalizer adjustment screen
- ⓑ: Bluetooth access (when device is already paired)

## Displaying the Identification (ID) Code

Before you listen to satellite radio, you must subscribe to the service using your radio’s identification number. To display the radio ID, press the |◀◀ or ▶▶| button on the touch screen repeatedly to tune to channel “000”. The screen displays the radio ID where the channel name is usually displayed.

## Direct Channel Entry

To select a channel directly, touch the ⌨ button on screen to display the direct entry menu.




Enter the desired track using the on-screen number pad. Press **OK** to play the selected track number. To backspace, touch ⬅.

# iPod® OPERATION

***NOTE: Be sure your iPod has the latest Apple firmware installed to avoid connectivity issues.***

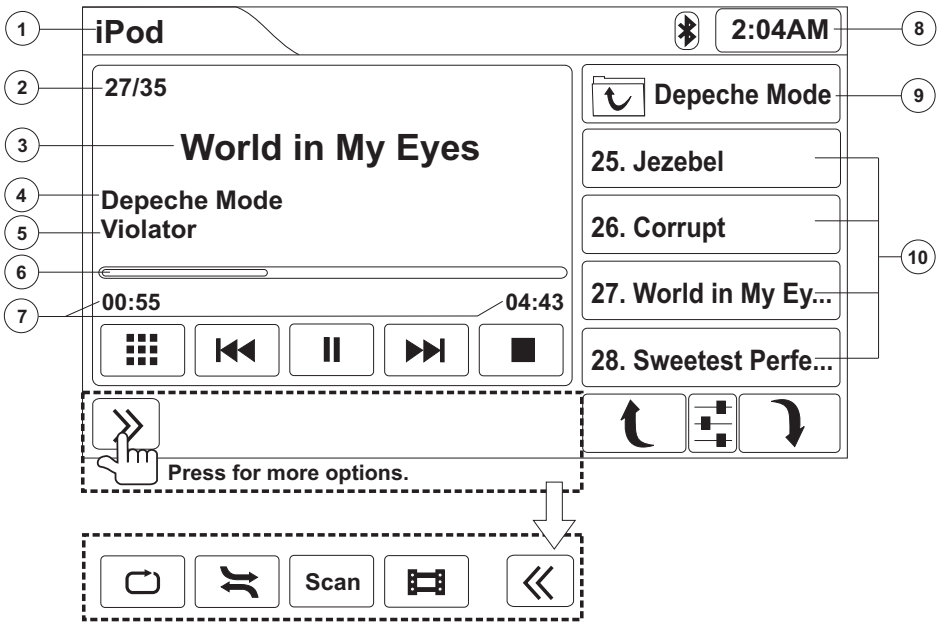
This unit is Made for iPod. You can control your iPod via touch screen to access Playlist, Artist, Album, Songs, etc. Supported models include, but are not limited to, the following:

- iPod Classic
- iPod Touch 2G / 3G
- iPod Nano 3G / 4G / 5G

***NOTE: For basic iPod connectivity, you can use the white 30-pin to USB iPod cable that came with your Apple device. For iPod video playback, you must purchase the jLink-USB cable.***

## Accessing iPod Mode

To access the iPod screen, press the **SRC** button (10) on the front panel or touch the top left corner of the screen to access the Source menu, and then touch the iPod icon. You can also press the **SRC** button (8) on the remote control until “iPod” appears at the top of the screen. The on-screen indicators and touch key areas for iPod playback are outlined below.



## Indicators/Controls

1. (a) Current source
   (b) Touch to view “Source” menu and select a new source
2. File number and total number of files
3. Song title
4. Artist name
5. Album name
6. Playback progress indicator
7. Elapsed playing time/total playing time for current file
8. Clock
9. (a) Sub-menu title or folder name
   (b) Touch to access iPod menu
10. (a) Names of files in current folder (touch to play)
    (b) Menu options

## Touch Screen Buttons

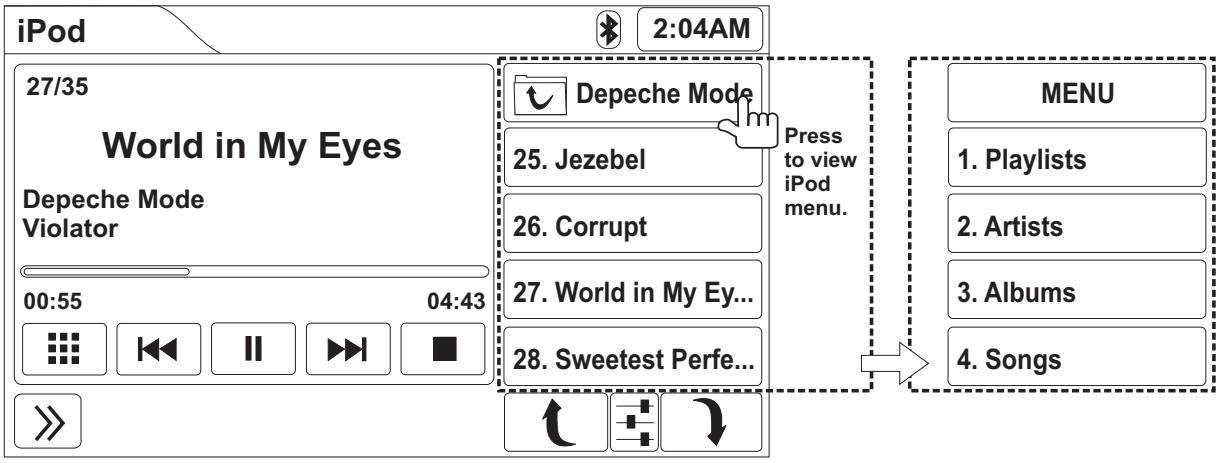
- : Direct entry screen
- |◀◀: Previous file
- ▶ / ||: Play/pause
- ▶▶|: Next file
- ■: Stop
- : (x1) Repeat song, (x2) repeat album
- : Random/shuffle all
- **Scan**: Scan the first ten seconds of each song in the current album
- / : View video/music menu
- 》/《: Expand/collapse additional menu options
- / : Page up/page down
- : Equalizer adjustment screen
- : Bluetooth access (when device is already paired)

**Table 8: iPod Remote Control Functions**

| | |
|---|---|
| ↻ | Press once to repeat song, twice to repeat album |
| **SUB-T** | Select video menu |
| **ANGLE** | Select music menu |
| ▲, ▼, ◄ ► | Navigate iPod menu |
| **OK** | Select highlighted option or resume playback when paused/ stopped |
| ⏮ | Previous file |
| ⏭ | Next file |
| ◄◄ | Rewind |
| ►► | Fast forward |
| ■ **/ BAND** | Stop (press **OK** to resume playback) |
| **ESC** | Access iPod main menu |
| **ROOT** | Return to root folder |
| **1-9, 0** (Keypad) | Direct enter file number for playback |

## Using the iPod Menu

During music playback, the following screen is displayed:




Touch the top right button (indicated above) or press the **ESC** button (18) on the remote control to access the iPod main menu.

Use the on-screen buttons or the directional keys (▲, ▼, ◄, ►) on the remote control to navigate the iPod menu. If using the remote, press **OK** to select the highlighted option.

## Direct Track Entry

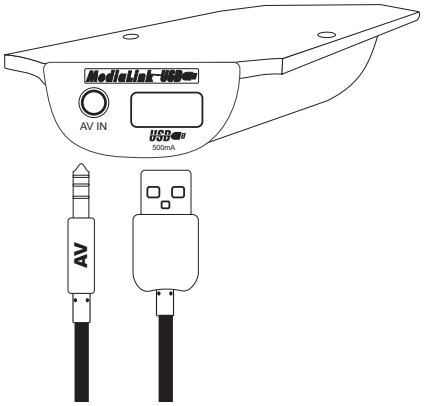
To select a track directly, touch the ▦ button on screen to display the direct entry menu.

Enter the desired track using the on-screen number pad. Press **OK** to play the selected file number. To backspace, touch ⬅.

***NOTE: To transmit the video from your iPod to the VM9424 screen, you must set the following options through the iPod video settings menu: TV Out = On, TV Signal = NTSC, and Widescreen = On.***

## iPod Video Playback

Video playback requires the jLink-USB iPod interface cable (sold separately) connected to the MediaLink USB, shown below.




Press the 🎞 icon on the second page of on-screen controls to view the iPod video playback menu. During video playback, touch the screen to return to the iPod menu.

# BLUETOOTH OPERATION

***NOTE: Bluetooth operation requires optional BTM10 accessory.***

## About Bluetooth

Bluetooth is a short-range wireless radio connectivity technology that is developed as a cable replacement for mobile phones, handheld PCs and other devices. Bluetooth operates in 2.4 GHz frequency range and transmits voice and data at speeds up to 1 megabit per second. Bluetooth was launched by a special interest group (SIG) comprised of Ericsson Inc., Intel Corp., Nokia Corp., Toshiba and IBM in 1998, and it is currently developed by nearly 2,000 companies worldwide. The Bluetooth word mark and logos are owned by the Bluetooth SIG, Inc. and any use of such marks by Audiovox Corporation is under license. Other trademarks and trade names are those of their respective owners.

***NOTE: The line-of-sight distance between this unit and your cellular phone must be 8 meters or less for sending and receiving voice and data via Bluetooth wireless technology. However, the transmission distance may become shorter than the estimated distance, depending on the environment in use.***

Before attempting to use the Bluetooth functions on the VM9424, you must purchase and install the BTM10. When connected properly, the blue light appears illuminated. Bluetooth features are only available when the BTM10 is installed.

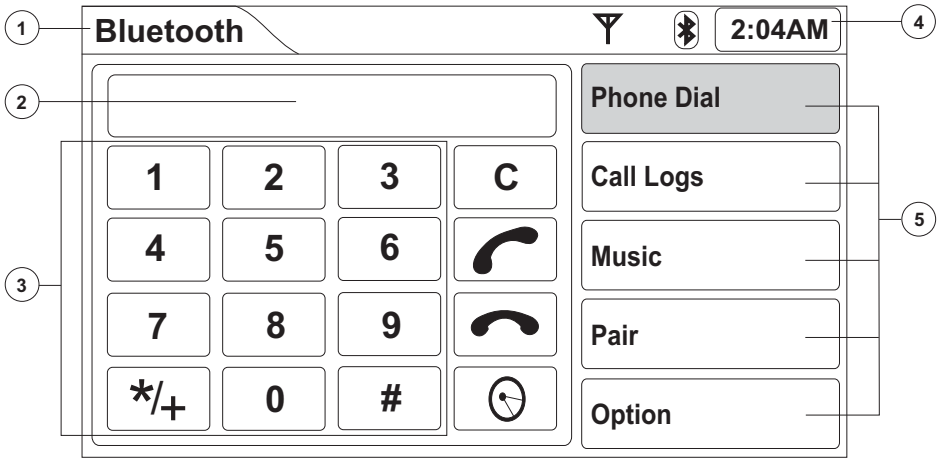
Please make sure your mobile phone supports Bluetooth functions (Headset or Handsfree profiles or both). Adhere to the following guidelines for successful operation.

- Before using Bluetooth functions, you must pair your mobile phone to the VM9424 head unit (see “Pairing Your Mobile Phone and Head Unit”). To ensure the best reception for pairing and re-connection, please make sure the phone battery is fully charged before you begin.
- Try to perform pairing within a few minutes of the phone being turned on.
- Once the unit has been paired with the phone, the unit’s model number, “VM9424”, will be displayed on the mobile phone.
- To achieve the best performance, always keep the mobile phone wi hin 3 meters of the head unit.
- Always keep a clear path between the mobile phone and the head unit. Never place a metal object or any other obstacle between the mobile phone and the head unit.

- Some mobile phones (like Sony Ericsson) may have a "Power Saving Mode" option. PLEASE DO NOT use the power saving mode with the VM9424.
- Before accepting or making a call, make sure your mobile phone's Bluetooth function is turned on.
- To ensure the best conversation quality/performance, stay within one meter of the BTM10 when talking.
- To disconnect the mobile phone from the head unit, turn the Bluetooth connectivity off on the mobile phone or touch the on-screen **Disconnect** button.

## Accessing Bluetooth Mode

To access the Bluetooth interface, press the **SRC** button (10) on the front panel or touch the top left corner of the screen to access the Source menu, and then touch the Bluetooth icon. The on-screen indicators and touch key areas for the Bluetooth “Phone Dial” interface are outlined below.




1. (a) Current source
   (b) Touch to view “Source” menu and select a new source
2. Current activity field (phone number entry, pairing progress, phone book update status, etc )
3. Keypad
4. Clock
5. Bluetooth Menu (touch to view options)

## Touch Screen Buttons

- **1**-**9**, **0**, ***/+**, **#**: Direct dial phone number
- **C**: Backspace
- : Answer incoming call/make call
- : Reject incoming call/end call/quit pairing process/quit reading phone book or call listing
- : Transfer call to/from the unit back to the wireless device
- **Phone Dial**: Access direct entry screen
- **Call Logs**: View call logs (Contacts, Dialed Numbers, Received Calls, Missed Calls)
- **Music**: Play streaming music from your connected device via A2DP
- **Pair**: Pair your Bluetooth phone (first time use)
- **Option**: Expand/collapse additional menu options
- : Bluetooth connection indicator

## Hands Free Profile (HFP)

To use a phone wirelessly with this unit, it is necessary to first establish a connection using Bluetooth wireless technology. Connection is normally established using HFP (Hands Free Profile), which gives you full control of functions available on the telephone source. However, depending on your phone, the connection may be made using HSP (Head Set Profile), making some functions unavailable. This is a limitation of your phone, not the VM9424.

Since there are a number of Bluetooth mobile phone implementations available on the market, operations with your Bluetooth mobile phone using this unit vary greatly.

Please refer to the instruction manual that came with your Bluetooth mobile phone along with this manual while operating your phone with this unit.

## Pairing Your Mobile Phone and Head Unit

1. Press the on-screen **Pair** button to initiate the pairing process. Keep the mobile phone within 2 meters of the head unit when pairing. (To terminate the pairing process, press the **Pair** button again.)
2. Select the Bluetooth setup option on the mobile phone to be paired (please refer to the phone's instruction manual to learn how to enter Bluetooth setup, turn Bluetooth on/off, and perform pairing). Access the wireless phone Bluetooth function and set the Bluetooth function to ON.
3. Set your wireless phone Bluetooth discover mode to ON.

***NOTE: Some discovery modes have a time limit, usually one minute, after which discovery needs to be reactivated.***

4. Select the set ing on your phone that allows you to add a new device.
5. Select “VM9424” from the pairing list on the mobile phone.
6. A prompt to pair or bond should appear on your wireless phone. Accept the request to initiate pairing.

***NOTE: Some phones require a “pass key” or pairing code to connect. If your phone requires a pass key or pairing code, you will need to enter this number in the Pairing Code field under the Bluetooth SETUP menu. The default pairing code for many phones is “0000”. The default code for the VM9424 is “1234”.***

7. If your mobile phone displays a prompt requesting a pass key or pairing code, enter “1234.”
8. When prompted by the mobile phone, choose YES to connect to the 9414. If pairing is successful, the TFT will display the paired mobile phone model number or name (as specified in your phone’s Bluetooth Setup menu). If pairing fails, “No Cell Phone Connected” is displayed at the bottom of the screen.

## Managing Incoming Calls

When connected to a Bluetooth phone, the unit will mute audio output, pause CD play, and change to the Bluetooth screen when a call is received. An incoming phone number or assigned contact name will appear at the top of the screen. If the incoming call has no caller ID, the unit will display “Private Caller.”

Touch **Option** to specify how incoming calls are handled:

- Auto Answer: Incoming calls are answered automatically.
- Manual Answer: User must press the button to answer an incoming call.

***Answering an Incoming Call Manually***

To answer the call, touch the button.

***NOTE: The TALK button on the BTM10 can be used to answer calls or hang up.***

For best reception, speak loudly and clearly.

To end the conversation, press the button. The screen will display the call duration for 3 seconds, and then return to the previous mode.

***Rejecting an Incoming Call***

Touch the button to reject an incoming call. The call will revert to your phone and can be answered directly or left for voice mail.

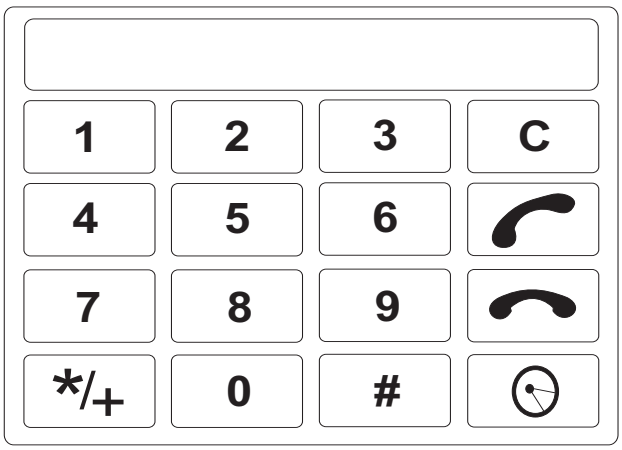
***Volume Control***

To increase or decrease the volume level, turn the **VOL** rotary encoder (5) on the front panel or press the **VOL+/ VOL-** buttons on the remote control (16, 15).

## Making an Outgoing Call

Outgoing calls can be made using the direct dial screen or by selecting a number from the "Call Logs" screen (see "Call Logs" on page 46). To make a call from the direct dial screen:

1. Touch **Phone Dial** to view the direct dial screen.




2. Use the **0**-**9**, ***/+** and **#** buttons to input the phone number.
   - Touch the **C** button to clear the last digit.
   - Touch the button to clear the entire number and start over.
3. After entering the phone number, press the button to dial the call.
4. To end the conversation, press the button.

## Call Transfer

While talking, to transfer audio from the head unit back to the mobile phone, touch the button. You can only transfer a call after it has been answered. Press again to transfer the call back to the head unit.

## Call Logs

The Bluetooth menu appears on the right side of the screen. Touch **Call Logs** to view stored contact information.

***NOTE: Not all phones allow access to missed, received or dialed calls and some will not allow uploading of your phone's address book.***

***Contacts***

1. Touch the **Contacts** menu option to display the phone book stored on your mobile phone, if compatible. The screen will display “Updated Phonebook ### records...” while the phone book is downloading.
2. Once  he download is completed, you can use the arrow buttons and on the left side of the window to navigate the list.
3. Touch a number to dial it automa ically.

***NOTE: Some mobile phones do not support Phone Book upload through Bluetooth. This is a limitation of the phone, not the VM9424.***

***Dialed Numbers***

The Dialed Numbers list retrieves the list of dialed numbers from your phone. The last dialed number is the first number on the list. Touch the **Dialed Numbers** menu option to view the list. To make a call from the Dialed Numbers list, touch the number. The TFT will display “Select other record” when the feature is not available. When displayed, “Select other record” to return to the “Call Logs” menu.

***Received Calls***

Use the Received Calls list to view the last 10 received numbers stored on your phone. To access the Received list, touch the **Received Calls** menu option. The last received number is the first number on the list. To make a call from the Received Calls list, touch the number. The TFT will display “Select other record” when the feature is not available. When displayed, “Select other record” to return to the “Call Logs” menu.

***Missed Calls***

The Missed Calls list retrieves the list of Missed numbers from your phone. The last missed number is the first number on the list. Touch the **Missed Calls** menu option to view the list. To make a call from the Missed Calls list, touch the number. The TFT will display “Select other record” when the feature is not available. When displayed, “Select other record” to return to the “Call Logs” menu.

## Bluetooth Auto Connect

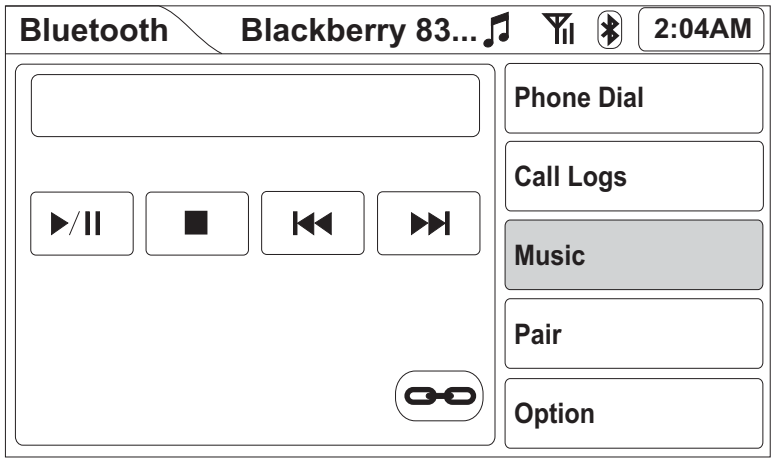
The Bluetooth auto connect option will allow the VM9424 to automatically connect to your previously paired Bluetooth when it is in range. When the Bluetooth option is set to “Off”, you must press the **Pair** button to re-establish a connection with your phone. To turn Bluetooth auto connect on:

1. Touch the top left corner of the screen to view the “Source” menu.
2. Press the **SETUP** button.
3. The Bluetooth option is at the bottom of the “General” sub menu. Use the touchscreen to turn the Bluetooth function “On.”

## Bluetooth Streaming Music

Bluetooth provides an Advanced Audio Distribution Profile (A2DP) for streaming music from a wireless phone or portable multimedia player (PMP), often called an MP3 player. The VM9424 allows you to play audio files from your phone or PMP using a Bluetooth connection.

Before using an audio player, it may be necessary to enter the default passkey, “1234,” into your wireless device. Touch **Music** to access the music playback interface.




- |◀◀: Previous file
- ▶ / ||: Play/pause
- ▶▶|: Next file
- ■: Stop
- ⚯: Connect/disconnect music streaming capability

***NOTE: Please quit A2DP mode before attempting to make a phone call, as unexpected results may occur depending on your mobile phone model.***

The VM9424 can control a Bluetooth audio player via Advanced Audio Distribution Profile (A2DP) or Audio/Video Remote Control Profile (AVRCP). Bluetooth audio players (or Bluetooth adapters) compatible with these profiles can be connected to this unit. Functionality varies depending on the profile used.

During an incoming call, music playback is paused. When  he call is completed, the music function appears again and playback resumes.

# VIEWING JPEG PHOTOS

JPEG images stored as individual images or stored in folders can be accessed using the DISC/SD/USB interface. When a disc/card is loaded and read by the unit, the root menu will display the contents of the disc. Press the folder image to view the contents of a folder. Individual images can be accessed using the touch screen or remote control directional arrows.

When a disc or card containing JPEG images is loaded in the unit,  he root menu appears automatically, displaying the contents of the disc.

Touch the folder name or use the directional keys (▲, ▼, ◀, ▶) on the remote control to navigate the JPEG menu. Touch the image name or Press the **OK** button on the remote control to select the image you want to view. The JPEG playback screen is shown below.

While viewing photos, touch the screen to access the following on-screen controls:

- **MENU**: View JPEG thumbnail menu (touch thumbnail to view)
- **INFO**: View on-screen playback information
- ■: Stop and return to JPEG folder menu
- |◀◀: View previous image
- ▶▶|: View next image
- ↺: Rotate image counter-clockwise
- ↻: Rotate image clockwise
- ↩: Exit JPEG mode and view Source menu

# REAR CAMERA FUNCTION

This unit is “camera ready.” Before accessing any camera features, you must install a rear video camera. When the camera is not installed and the function is accessed by gear selector being placed in reverse or by the unit’s menu, the message “VIDEO NOT DETECTED” will appear, indicating the function is not available.

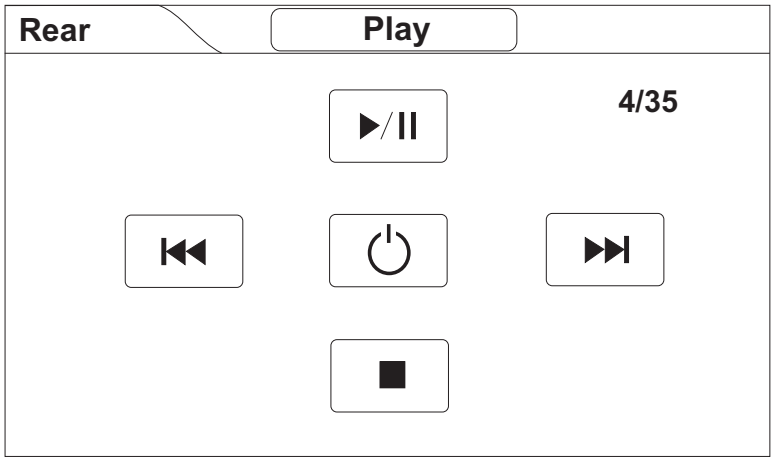
When the camera is installed, the rear view image of what’s behind the vehicle will appear when the vehicle’s is placed in reverse gear. When leaving reverse gear, the unit displays the previous screen. The rear camera image can be adjusted from Normal to Mirror using the “Setup” menu (“General Sub-menu Features” on page 15).

# REAR MONITOR VIDEO DISPLAY

This unit allows you to install one or two additional monitors (sold separately) for DVD/CD playback. You can play DVD video and another source simultaneously. For example, the unit's screen can be set to Radio function while the rear passengers can watch a DVD/CD using an optional rear monitor.

To access the rear display function, perform the following steps:

1. Turn on the rear monitor(s). Refer the instruction manual that came with your monitor for instructions.
2. Insert a DVD/CD into the unit.
3. Access the "Source" menu and press the **REAR** icon.
4. Use the on-screen controls to control rear zone playback.




- |◀◀: Previous chapter
- ▶ / ||: Play/pause
- ▶▶|: Next chapter
- ■: Stop disc playback
- ⏻: Turn rear display function on/off

# TROUBLESHOOTING

**Table 9: Troubleshooting**

| Problem | Cause | Corrective Action |
|---|---|---|
| **GENERAL** | | |
| Unit will not power on | Radio Fuse blown | Install new fuse with correct rating |
| | Car battery fuse blown | Install new fuse with correct rating |
| | Illegal operation | Press the RESET button located in the bottom right corner of the front panel |
| Remote control does not function | Battery depleted | Replace battery with new one |
| | Battery installed incorrectly | Remove battery and install correctly |
| No/low audio output | Improper audio output connection | Check wiring and correct |
| | Volume set too low | Increase volume level |
| | Improper “MUTE” connection | Review wiring diagram and check “MUTE” connection |
| | Speakers damaged | Replace speakers |
| | Heavily biased volume balance | Adjust the channel balance to the center position |
| | Speaker wiring is in contact with metal part of car | Insulate all speaker wiring connections |
| Poor sound quality or distortion | Pirated disc is in use | Use original copy |
| | Speaker power rating not compatible with unit | Connect proper speakers |
| | Speaker is shorted | Check speaker contact |
| Unit resets itself when engine is off | Incorrect connection between ACC and positive battery wire | Check wiring and correct |
| TFT MONITOR | | |
| No image | Incorrect connection to parking brake wire | Check wiring and correct |
| | Parking brake is not engaged | Stop vehicle in safe place and apply parking brake |
| Flashing image or interference appears on screen | DVD is not compatible with current TV system settings | Change setup to accommodate disc |
| | Improper video signal connections | Check wiring and correct |

## Table 9: Troubleshooting

| Problem | Cause | Corrective Action |
|---|---|---|
| Prolonged image or improper height/width ratio display | Improper aspect ratio setup | Use correct aspect ratio setting |
| TUNER | | |
| Weak station searching | Auto antenna is not fully extended | Connect the auto antenna control cable properly |
| | Auto antenna not properly connected | Connect the auto antenna control cable properly |
| | LOCAL function is activated | Turn LOCAL function off |
| Cannot insert disc | Disc already inside unit | Eject current disc and insert new one |
| Image blurred, distorted, or dark | Disc is illegally copied | Use original disc |
| Disc does not play back | Disc is warped or scratched | Use disc in good condition |
| | Disc is dirty or wet | Clean disc with soft cloth |
| | Laser pickup is dirty | Clean laser pickup with cleaning disc |
| | Incompatible disc is used | Use compatible disc |
| | Disc rating exceeds Parental Lock rating limit | Change Parental Lock settings to lower restriction |
| | Disc region code is not compatible with unit | Use disc with proper region code |
| | Disc is inserted upside down | Insert disc with label side up |
| PBC cannot be used during VCD playback | PCB is not available on the disc | |
| No repeat or searching while playing VCD | PCB is on | Turn PCB off |
| MP3 | | |
| Interruption occurred during playback | Disc is dirty or scratched | Clean disc or replace |
| | File is damaged/bad recording | Recreate disc with good files |
| Incorrect playback message displayed | Message is longer than LCD can display | |

# Error Messages

**Table 10: Error Messages**

| Message Displayed | Cause | Corrective Action |
|---|---|---|
| Loading | Disc is being read | |
| No Disc | Disc is dirty | Clean disc with soft cloth |
| | Disc is upside down | Insert disc with label side up |
| | Disc not present in loading compartment | Insert disc |
| Bad Disc | Disc is dirty | Clean disc with soft cloth |
| | Disc is upside down | Insert disc with label side up |
| Unknown disc | Disc format is not compatible with this unit | |
| Region Error | DVD is not compatible with region code of unit | |
| Error | Illegal mechanism operation | Press EJECT key for 5 seconds to reset loading mechanism |

## Care and Maintenance

1. Use only a clean silicone cloth and neutral detergent to clean the front panel or monitor. A rough cloth and non-neutral detergent (such as alcohol) may result in scratching or discoloration.
2. Do not get water or cleaning fluids on the unit.
3. If the temperature inside the player gets too hot, a protective circuit automatically stops play of the disc. If this occurs, allow the unit to cool before operating the player again.
4. Never insert anything other than a 5” (12 cm) compact disc into the player as the mechanism can be damaged by foreign objects.
5. Do not attempt to use a 3” (8 cm) CD-Single disc in this unit, either with or without an adaptor, as damage to the player and/or disc may occur. Such damage is not covered by the Warranty on this product.
6. The CD player may not operate properly in extreme hot or cold. If such conditions occur, allow the interior of the vehicle to reach a normal temperature before using player.
7. When the vehicle warms up during cold wea her or under damp conditions, condensation may appear on the LCD panel. Should this occur, the screen will not operate properly until the moisture has evaporated.
8. We suggest you use a cleaning disc in this unit more frequently than in the unit in your home due to the environmental conditions of the vehicle.

# SPECIFICATIONS

***DVD/CD Player***

Compatible Disc Media: DVD ± R / RW (Single and Dual Layer) and CD-R / RW
Compatible Media Formats: CD-DA, MP3, WMA, VCD, SVCD, MPEG1 / 2
Signal to Noise Ratio: >95dBA
Dynamic Range: >95dB
Frequency Response: 20Hz to 20 kHz, -3dB
Channel Separation: > 60dB @ 1 kHz
D/A Converter: High performance 24-bit / 192 kHz sample rate, Multi-Bit Sigma-Delta Modulator

***Video***

Format: NTSC, PAL (auto-detection)
Output: 1Vp-p (75-ohm)
Input: 1Vp-p (75-ohm)

***FM Tuner***

Tuning Range: 87.5MHz - 107 9MHz
Mono Sensitivity (-30dB): 9dBf
Quieting Sensitivity (-50dB): 15dBf
Alternate Channel Selectivity: 70dB
Signal to Noise Ratio @ 1 kHz: 58dB
Image Rejection: 80dB
Stereo Separation @ 1 kHz: >30dB
Frequency Response: 30Hz - 15 kHz, -3dB

***AM Tuner***

Tuning Range: 530 kHz - 1720 kHz
Sensitivity (-20dB): 15uV
Signal to Noise Ratio @ 1 kHz: 50dB
Image Rejection: 60dB
Frequency Response: 50Hz - 2 kHz, -3dB

***Monitor***

Screen Size: 6.2" (Measured diagonally), 16:9 Widescreen
Screen Type: TFT Liquid Crystal Display (LCD) active matrix
Resolution: 336,960 sub pixels, 1440 (W) X 234 (H)

***General***

Auxiliary Input impedance: 10k
Power Supply: 11 to 16VDC, negative ground
Power Antenna (Blue): 500mA max, current limited protection
Amplifier Remote (Blue/White): 500mA max, current limited protection
Operating Temperature: -20C ~ 65C
Fuse: 15-amp, mini ATM type

DIN chassis dimensions: 7" X 7" X 2" (178mm x 178mm x 50mm)

***CEA Power Ratings***

Power Output: 13 Watts RMS x 4 channels into 4-Ohms @ ≤ 1% THD+N
Signal to Noise Ratio: 70dBA below reference (Reference: 1 Watt, 4-Ohms)
Frequency Response: 20 Hz - 20 kHz, -3dB. (Aux Input used as reference input)
Reference Supply Voltage: 14.4VDC

**Specifications subject to change without notice.*

# HORIZON NAVMATE INTRODUCTION

We hope that you enjoy using your new navigation system. This navigation system leads you straight to your destination. You can navigate and plan your route with an easy-to-use and intuitive interface, plan your trip to suit your personal preferences and interests, and find and save (bookmark) interesting destinations before you begin your trip.

## Key Features

- Powered by Horizon NavMate
- Tele Atlas Map Data
- 11 million POI (Point Of Interest)
- Speed Sensitive Zoom
- Female/Male TTS Voice Guidance
- Female/Male Recorded Voice Guidance
- Turn by Turn Voice Guidance

## About GPS and GNSS

The VM9424 uses a vehicle GPS (Global Positioning System)-based navigation device which utilizes digital map data to guide you from your selected location A to location B, using location information obtained from a Global Navigation Satellite System (GNSS).

A GNSS consists of a set of satellites that transmit high-frequency radio signals containing time, direction, and distance data that can be picked up by a receiver, allowing users to pinpoint their precise locations anywhere around the globe. Navigation Satellite Receivers (GPS devices) use this transmitted information to calculate an exact location on the earth. Every point on Earth can be identified by latitude and longitude. The receiver uses the information sent by at least three satellites and determines the coordinates of the receiving device.

By comparing the time the signals were transmitted from the satellites and the time they were recorded, the receiver calculates how far away each satellite is. The distance of the receiver from three or more satellites reflects its position on the surface of the planet. Using these distance measurements, the receiver might also be able to calculate speed, bearing, trip time, distance to destination, altitude, etc. The GPS position may be displayed as a point on a digital map (at least  hree satellites' signals must be received) and as the GPS device moves the corresponding trace is displayed as well.

Please keep in mind that although the radio signals of navigation satellites will pass through clouds, glass, plastic, and other lightweight materials, satellite-navigation receivers will not work underground or in some enclosed spaces.

## Horizon NavMate Navigation / Tele Atlas Map Data

The navigation map data covers the continental US, Alaska and Hawaii.

The initial GPS location lock is best established when your vehicle is parked. If the device is in motion, the signal can take longer to initially connect. Once the initial coordinates are established, the software will follow you as you move and navigate.

***NOTE: It may take up to 5 minutes to establish the first connection. Subsequent connections will be faster (30 seconds to 1 minute), but if you have not used the unit for several days or are very far away from the last location you used it, it may take up to 5 minutes again to find a strong signal.***

# SAFETY INFORMATION

## User Agreement

When the unit is first turned on, you will see the following message, warning you to operate your navigation system appropriately:

You must agree to the above notice before using the navigation software. Touch the bar labeled “Press to accept.” to proceed to the Main Menu.

## Driver Safety Rules

The following safety rules must be followed to prevent accidents that can result in injury or death to yourself or others:

- The driver should operate the device only when the vehicle is stopped. Only a vehicle passenger should operate the device while the vehicle is moving. When driving, the need to view the display is minimal. Voice prompts will guide you to your destinations.
- It is your responsibility to comply with all traffic laws.
- The navigation software is designed to assist you in the process of reaching your destination. It is not a substitute for attentiveness and good judgement. It is your responsibility to disregard any unsafe, hazardous, or illegal route suggestions.
- The device does not include, analyze, process, consider, or reflect any of the following:
  a. Legal restrictions (such as vehicular type, weight, height, width, load and speed restrictions);
  b. Road slope or grade, bridge height, width, weight, or other limits;
  c. Population density;
  d. Neighborhood quality or safety;
  e. Availability or proximity of law enforcement, emergency rescue, medical, or other assistance;

f. Construction work zones or hazards;
g. Road or lane closures;
h. Road, traffic, or traffic facilities' safety or condition;
i. Weather conditions;
j. Pavement characteristics or conditions;
k. Special events;
l. Traffic conges ion.

- While every attempt is made to ensure that the database is accurate, roadways, points of interest, and business and service locations may change over ime.
- Do not use the VM9424 to navigate to a police station, hospital, etc. in an emergency. Call 911 for assistance.
- Laws in some states prohibit wearing stereo headphones or may prohibit use or placement of a navigation device while operating a motor vehicle. Please contact your state's Department of Motor Vehicles for information.

# BASIC OPERATION

## Acquiring a Satellite Signal

Drive your vehicle to an open area where the GPS signal can be clearly received and park the vehicle. If the device is in motion, the signal can take longer to initially connect.

With the ignition on, verify that the "GPS" indicator is green. It may take up to 5 minutes to establish the first connection. Subsequent connections will be faster (30 seconds to 1 minute), but if you have not used the unit for several days or are very far away from the last location you used it, it may take up to 5 minutes again to find a strong signal. If you cannot acquire the signal, drive to another location. If the signal is still unobtainable, check your antenna installation.

Once a GPS signal has been established, verify that the information display clock time (time displayed on the radio) matches the navigation system clock. With an established GPS signal, the software will follow you as you move and navigate.

The GPS symbol (

)may change colors indicating the strength of the signal. The GPS symbol colors mean:

- Green - GPS signal is free from obstruction and is being received regularly - at least four satellites are being received.
- Yellow - GPS signal is partially obstructed which means only three satellites are being received.
- Red - GPS signal is unavailable, meaning two or fewer satellites are being received.

# Using the Keyboard

### *Keyboard Command Buttons*

**Table 1: Keyboard Command Buttons**

| | |
|---|---|
| | Press to clear your selection and start over. |
| | Press to switch to City entry. |
| | Press to switch to Postal Code entry. |
| | Press to add a space when entering a multi-word location. |
| | When applicable, the specials characters button appears to the left of the space button, allowing to complete your entry of a business name. Press to view the special characters keyboard. |
| | Press to confirm current entry and begin navigation. |
| | Press to return to the previous screen. |

### *Look Ahead Feature*

Your NavMate software offers a convenient interactive look-ahead search function to prevent misspelling. Only keys that lead to a search result can be pressed – all others are greyed out.

After entering the second character, only letters that can be used to spell an existing destination will be available for selection of the third character, the fourth character, and so on.

***NOTE: On the keyboard screen, the "SPACE" button is located in the bottom center of the screen. Press the Space button to complete the search for entries with more than one word. For example, to locate Lake Mary, enter "Lake_" and then the "M" will become available for selection.***

## Selecting from Lists

You will often find it necessary to select items from a list. When viewing a list, the marked item appears highlighted in blue.

- Press the blue **/** / **V** arrow buttons or use the scroll bar on the right side of the screen to navigate the list.
- Use the / buttons to move through the list page by page.

- Touch the marked item to select it.

***NOTE: Some lists keep track of the five most recently used selections, which are placed at the top of the screen. This feature allows you to quickly select popular choices.***

## Function Buttons

**Table 2: Common Command Buttons**

| | |
|---|---|
| | Press the map icon to view your current location on the map or to return to map mode. |
| | Zoom in the map to show a smaller area. |
| | Zoom out the map to show a larger area. |
| | Press the return icon on any screen to return to the previous screen. |
| | Press the Menu icon to access the Main Menu. |
| | After panning map, press to view a list of locations near the selected position. |
| | Press to repeat voice prompt. |
| | Press to view the keyboard for direct entry. |
| | Press to go up one page while viewing a list. |
| | Press to go down one page while viewing a list. |
| | Press to begin search based on the selected parameters. |

## Main Menu

The main menu is your central point of access to all functions of the navigation software. It allows you to set your destination, manage your favorites and control all set ings of your device.

The “Main Menu” consists of the following options:

- **Home Address:** Return to Home Address.
- **Go To...**: Choose your destination by searching for an address, choosing an entry from the POI (point of interest) directory, selecting a location from the map, or by choosing a destination from a saved list of recently visited locations or favorites (see “Selecting a Destination” on page 73).
- **Setup**: Configure your naviga ion to suit your needs. Define general settings (e.g. time, language, or system of measurement), configure your map (e.g. 2D or 3D mode, day or night mode, map complexity) or load a map of a different region, set the route op ions (e.g. choose to avoid or allow toll roads or ferries, or change the volume (see “Setup Menu” on page 108).
- **Office Address:** Route to Office Address.
- **Trip Computer:** Display Speed, Trip, Odometer and Clock readings.

## Navigation Screen

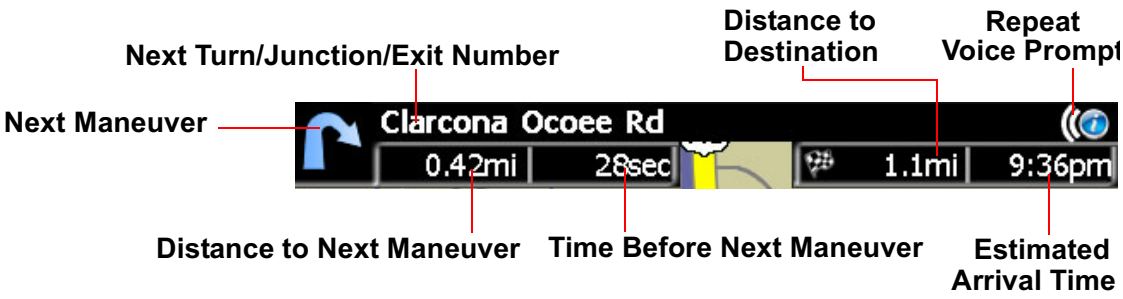
The map is the core component of your navigation software. During navigation, it is centered on your current location by default, provided you have a GPS connection.

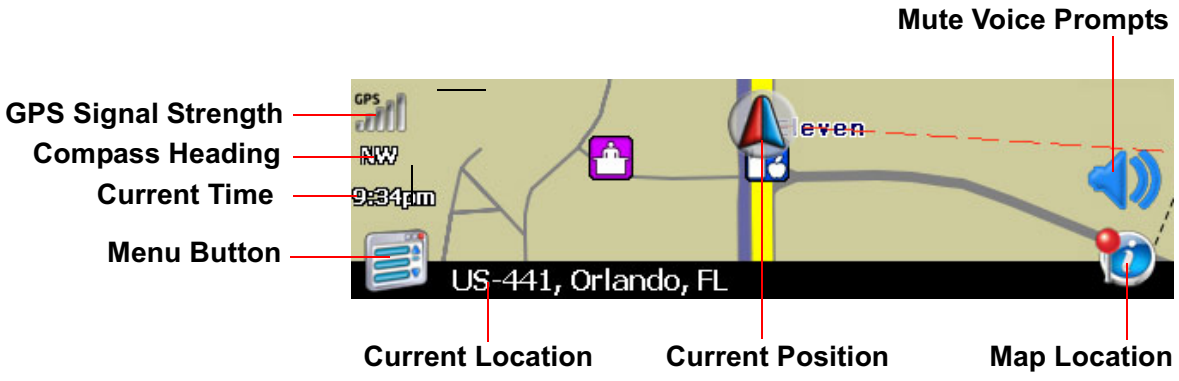
In Tracking mode, the map follows your actual position (GPS position), displaying information about your geographic position, distance to your destination, etc. The GPS position is indicated by a red/blue arrow.

You can also browse the map, view businesses and other Points of Interest (POI, and then choose them for routing and navigating. The map knows two basic states: Tracking and Browsing.

### *Map Tracking Screen*

During navigation, the screen displays your route (in yellow) and your surroundings. A red/blue arrow identifies your current position. The upcoming maneuver is visualized in the upper left corner, along with the distance and approximate time before that turn. When you come up to a turn, you will hear a voice command at the appropriate time.






On the left, additional information, including the current time, GPS signal strength and compass orientation (N, S, E, W) is displayed.

- To zoom in or out, press the **+** or **–** icons.
- To return to the Main Menu, press the button.

- To add a POI destination to your route, press the button.
- For one-way streets, the transit direc ion is indicated with a red arrow.
- For more information about navigation, see “Navigating” on page 92.

***Map Browsing Screen***

Touch (and hold)  he screen to access Map Browsing Mode. Use a stylus or your finger to browse the map. Your position is identified as the center of the crosshair.

- To zoom in or out, press the **+** or **–** icons.
- To return to the map tracking mode, press the button.

### *2D/3D/Split Screen*

During navigation or map browsing, you can click the button to switch between 2D (default), 3D and Split Screen map views.

## Trip Computer

The Trip Computer provides information about your vehicle speed, trip related timing, elevation, odometer and clock.

- Press the “i” icon to view detailed readings for each field.

- Press the blue **Λ** / **V** arrow buttons or use the scroll bar on the right side of the screen to navigate the list.
- Use the / buttons to move hrough he list page by page.
- Touch the marked item to select it.
- Press the button to reset the current reading.

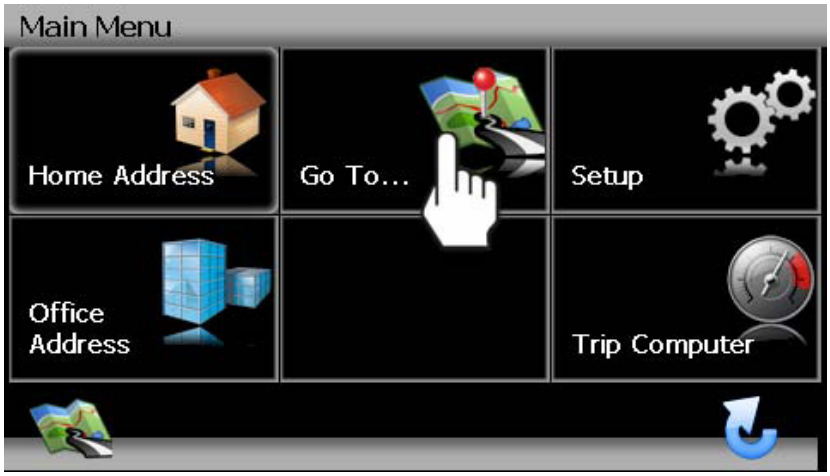
# SELECTING A DESTINATION

There are five different ways to find and choose a destina ion. Some methods allow you to select from a list using the arrow keys, while others allow you to search using an on-screen keyboard.

***NOTE: If a route is in progress when you exit the navigation system, the unit will prompt "Do you want to resume guidance?" when you resume operation. Press the green check mark to resume or the "X" to cancel and go to the "Main Menu."***

## Finding an Address

Press the **Go To...** button on the "Main Menu" to begin locating an address. If you cannot see the "Main Menu", press the button.



The “Go To...” menu appears, allowing you to search for an Address or Intersection, select a POI (Point of Interest), enter map Coordinates, or select a favorite or recent destination.

### *State or Province*

### *Address or Intersection*

After choosing the destination State or Province, press the **Address or Intersection** button to view the City/Postal Code screen. You can locate an

address or intersection *in the previously selected state* beginning with the City or by entering the Postal Code.

To toggle between City and Postal Code entry, press the / button.

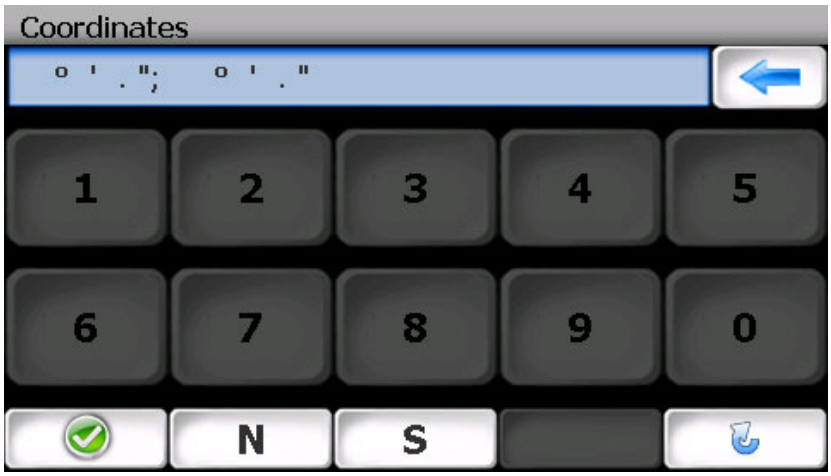
1. Begin entering the city by typing the City name or Postal Code. The navigation software will utilize it's look-ahead feature and only offer characters for existing cities as you type. Once the city is recognized as the only possible option based on the characters you entered, you will automatically be prompted for the street.
2. Enter the Street name using the same method described above. Once the street name is recognized, you will automatically be prompted for the street number.
3. Enter the street number using the same method described above.
4. Press the button to select the street number and access the "Start Route" screen.

***Point of Interest***

The POI finder allows you to quickly find points of interest, like gas stations and restaurants, in a database of millions of POI's. These places can be near your current position or near a selected State or Province. See "Selecting a Point Of Interest" on page 84 for information about locating a Point of Interest.

### *Coordinates*

Press the **Coordinates** button to route to a destination by directly entering latitude and longitude values.

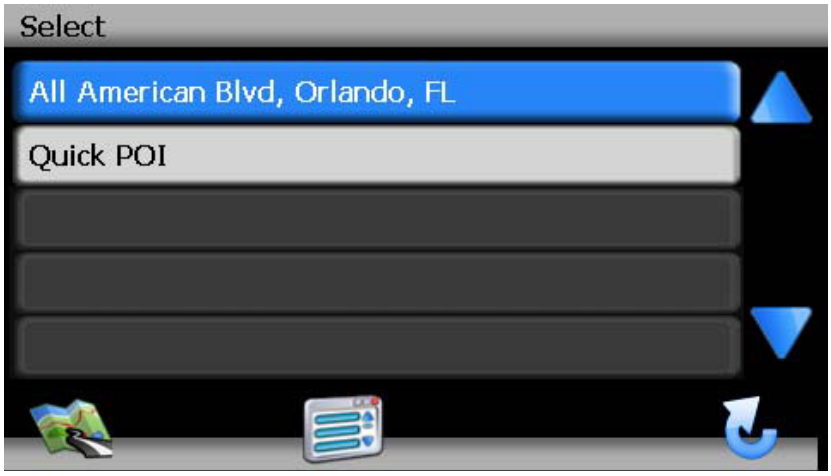



## Choosing a Location on the Map

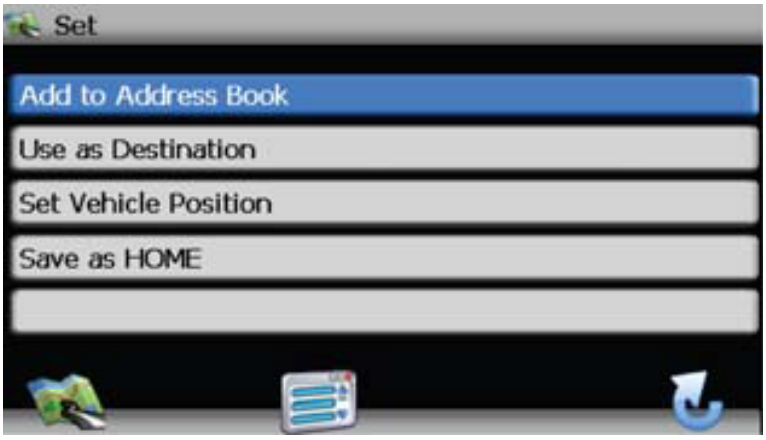
1. From the “Main Menu”, press the button. The “Map - Tracking” window will be displayed, indicating your last location:

2. Touch any part of the map area to enter browsing (panning) mode and navigate the map. Use  he +/– buttons to zoom in/out.

3. Press the button to view and select the address nearest the crosshair, or press **Quick POI** to locate a POI in the visible map area.



4. Touch the address to view the “Set” screen, where you can choose to set the address as your destination, your home address, or your vehicle position or choose to add this location to your address book.



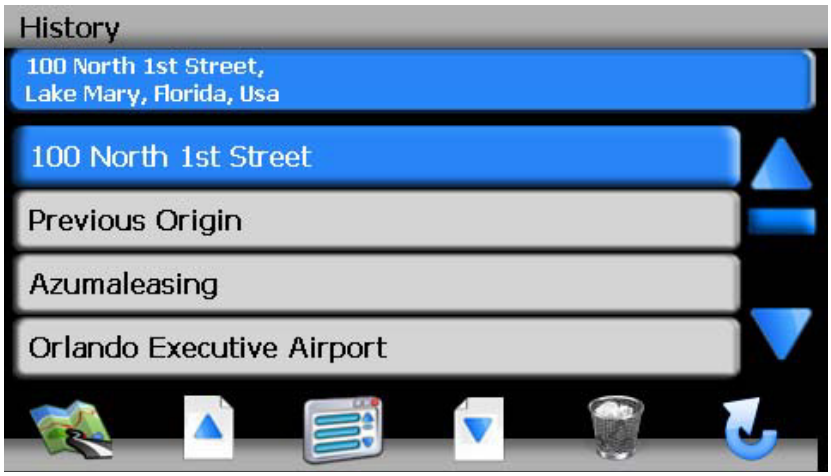

## Navigating to a Recent Location

Previous destinations are automatically saved to memory as “History”. This feature helps you quickly locate the address of and return to a previous destination. The origin of the last calculated route is also stored for easy return to your starting point.

1. From the “Main Menu”, select **Go To...**.

2. From the “Go To...” menu, select **History**.

3. A list of recent locations will appear on the screen.




4. Press to select a recent destination from the “History” list and view the “Start Route” screen.
   - Press the blue **Λ** / **V** arrow buttons or use the scroll bar on the right side of the screen to navigate the list.
   - Use the / buttons to move through the list page by page.
   - Press the Garbage Can icon to delete the highlighted item.
5. Continue navigation as instructed in the previous sections.

***NOTE: The “History” list stores the last 15 addresses or destinations. After 15 entries, the oldest destination will be deleted and the newest entry added to the top of the list. Recent addresses cannot be deleted manually.***

## Navigating to your Home or Office Address

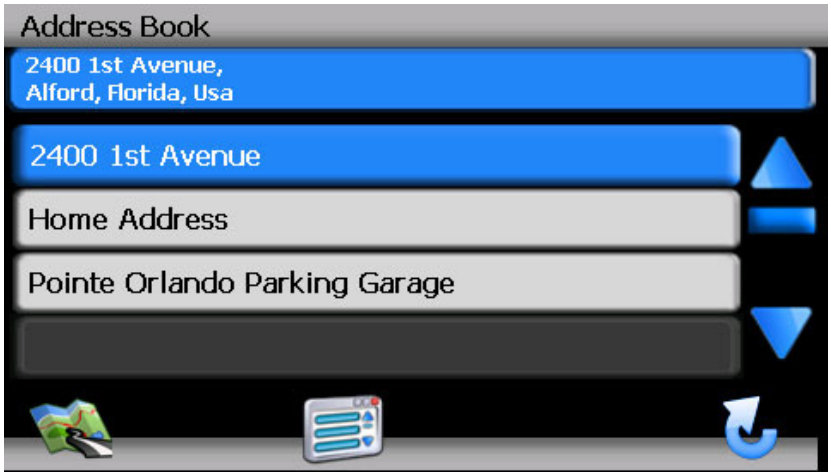
The **Home Address** and **Office Address** buttons allow you to quickly navigate to your home or office address.

If the home or office address is not already saved, a screen like the following will appear:

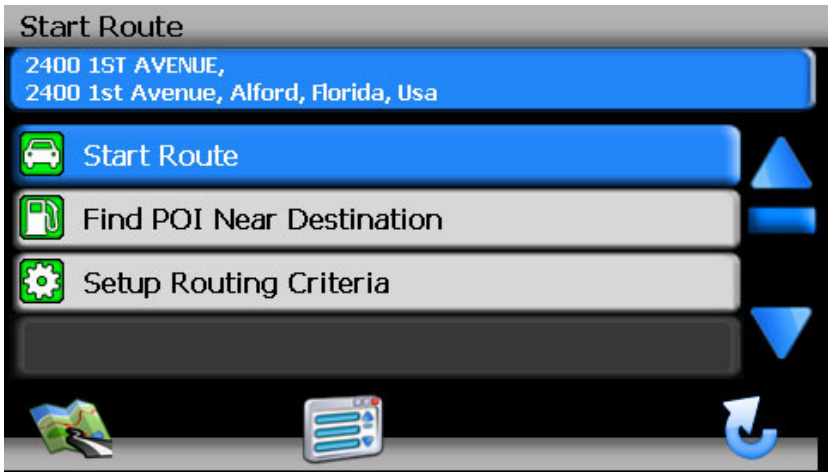
Press the check mark to enter and save your home or office address.

## Choosing a Location from your Address Book

1. On the “Main Menu”, press **Go To...**.
2. On the “Go To...” menu, press **Favorites**.
3. Press **Address Book** to view a list of Address Book entries.



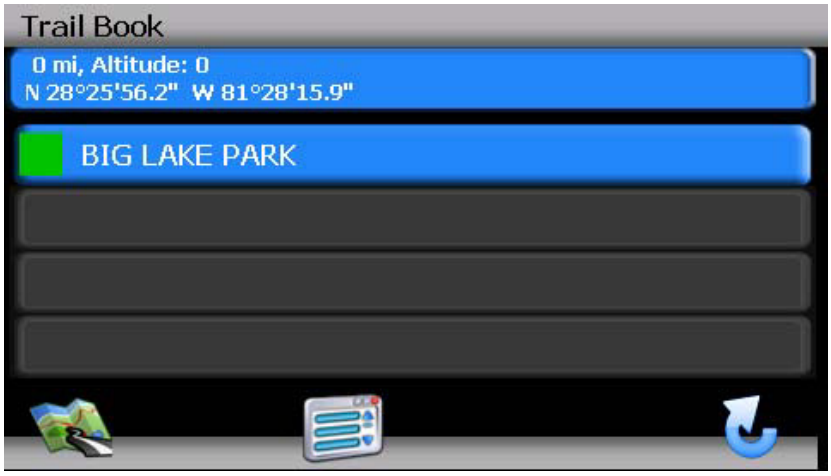

4. Select an Address Book entry.
   - Press to highlight an Address Book entry.
   - Press the blue **Λ** / **V** arrow buttons or use the scroll bar on the right side of the screen to navigate the list.
   - Use the / buttons to move through the list page by page.
5. Press **Start Route** to begin navigating to the chosen Address Book destination.



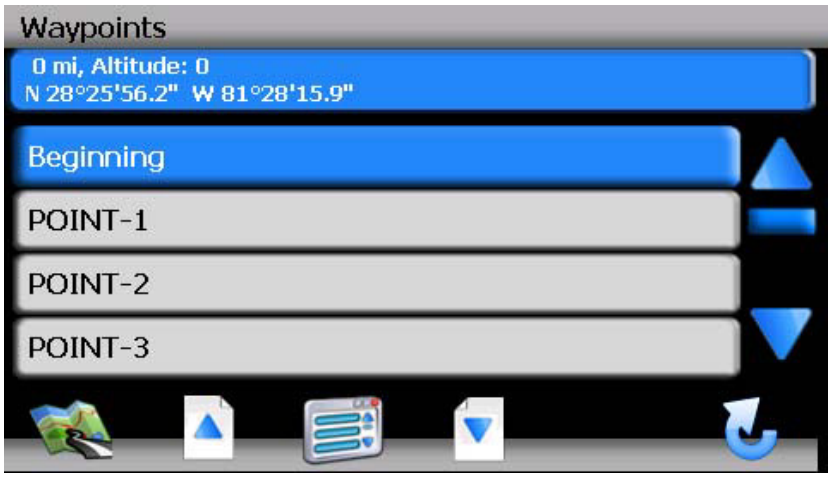
## Following a Trail

The Trail Book feature allows you to create a path using map points when navigation data is not available. To navigate to a saved Trail, perform the following steps:

1. Press the button to view the “Main Menu” (if not already doing so).
2. Press **Go To...**
3. Press **Favorites**.
4. Press **Trail Book** to view a list of existing trails.




5. Press  he Trail you would like to follow and a list of trail points will be displayed.




6. You can press to choose any Trail point as the stating point. Once a point is selected, the system will display a red dotted line from your current location to the starting point.

7. Follow the red line to begin traveling along  he trail. You can press the button and then press **Stop Trail** at any time to cancel the route.

# SELECTING A POINT OF INTEREST

From the main menu, press the **Go To...** button and then press the **Point of Interest** button. The “Point of Interest” window will be displayed:

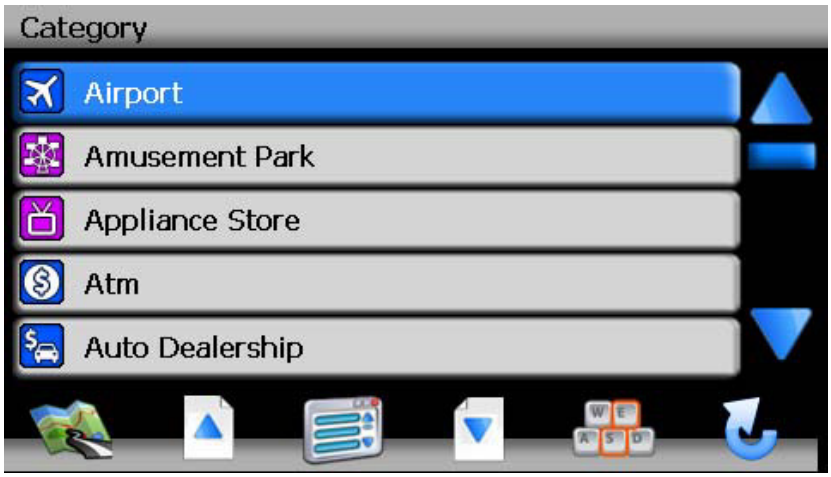
The previously selected State or Province is automatically selected for the POI search. Press the **State or Province** button to select a different State or Province. See “State or Province” on page 74.

## Searching for a Specific POI

To narrow your list of POI search results, you can enter a POI Category, City and/or Name. Entering a Category, City, or POI Name is optional.

***Category***

1. On the “Point of Interest” screen, press the **Category** button to view a list of possible categories.




- Press the blue /\ / **V** arrow buttons or use the scroll bar on the right side of the screen to navigate the list.

- Use the / buttons to move through the list page by page.

2. Click an item on the list to select that category OR press the button to access the keyboard and enter a category directly.

***City***

1. Press the **City** button to enter the city in which you would like to find a point of interest.
2. Begin typing the City name. The navigation software will utilize it's look-ahead feature and only offer characters for existing cities as you type. Once the city is recognized as the only possible option based on he characters you entered, the city name will appear at the top of the screen.
3. Press the button to select the City and return to the "Point of Interest" menu.

***Name***

To retrieve a very specific list of POI destinations, you can enter part or all of the POI name directly. Please note that the Name screen will allow you to enter any possible POI, but the system will return the message "No POI Found" if the selected name does not fall within the selected category or city.

***NOTE: Since business information changes regularly, not all POI categories are available in all areas and some POI's may not be listed for all categories. In addition, the search radius may be restricted to minimize the search time.***

**TO BEGIN NAVIGATION:**

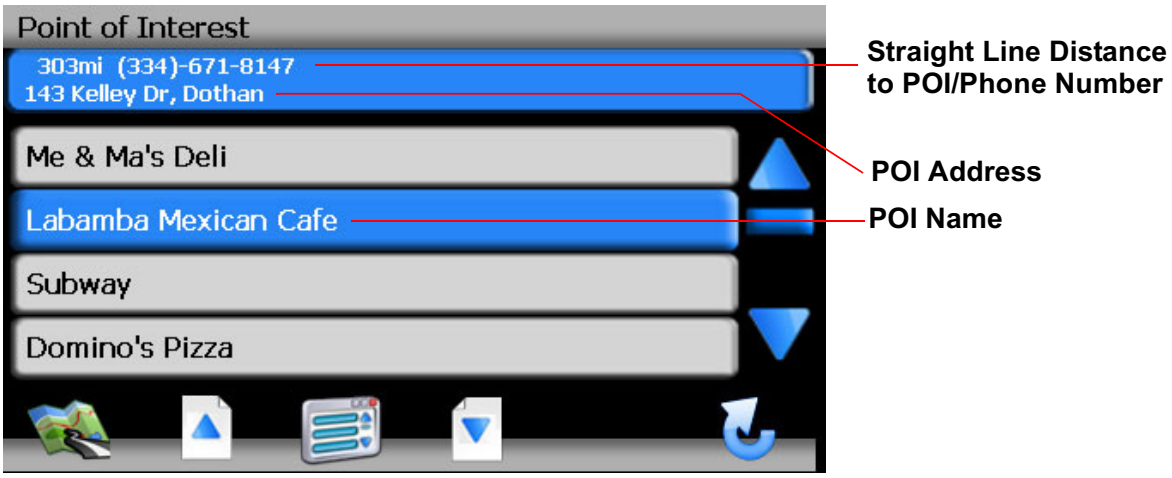
After entering the desired POI search parameters, perform the following steps to navigate to the chosen POI.

1. Press the button
2. Press **Sort by Distance** or **Sort by Name** to retrieve a list of POI's within the parameters you entered.
   - Press the blue **Λ** / **V** arrow buttons or use the scroll bar on the right side of the screen to navigate the list.
   - Use the / buttons to move through the list page by page.
3. Press to select a POI destination and access the "Start Route" screen.

## Browsing POI Destinations

1. Press the button to display a menu of six common POI categories from which you can choose.

2. Press to select **Hospital**, **Restaurant**, **Parking Lot**, **Hotel**, **Gasoline Station** or **Atm** and display a list of POI's in that category.

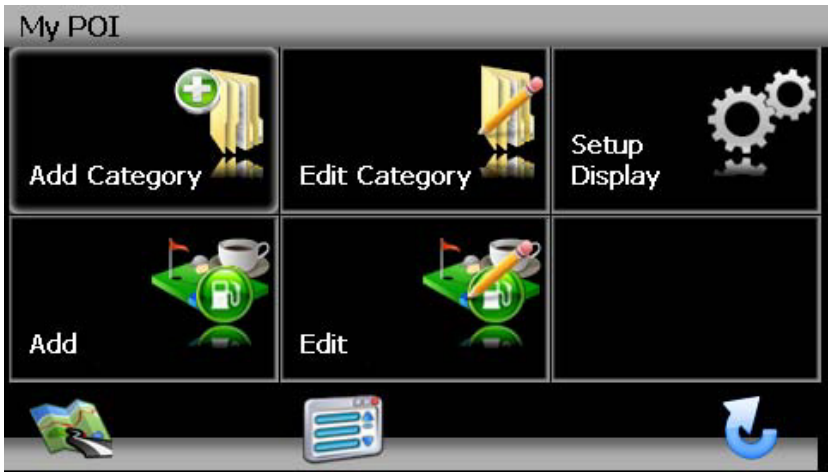



- Press the blue /\ / **V** arrow buttons or use the scroll bar on the right side of the screen to navigate the list.
- Use the / buttons to move through the list page by page.

3. Press to select a POI destination and access the "Start Route" screen.

## My POI

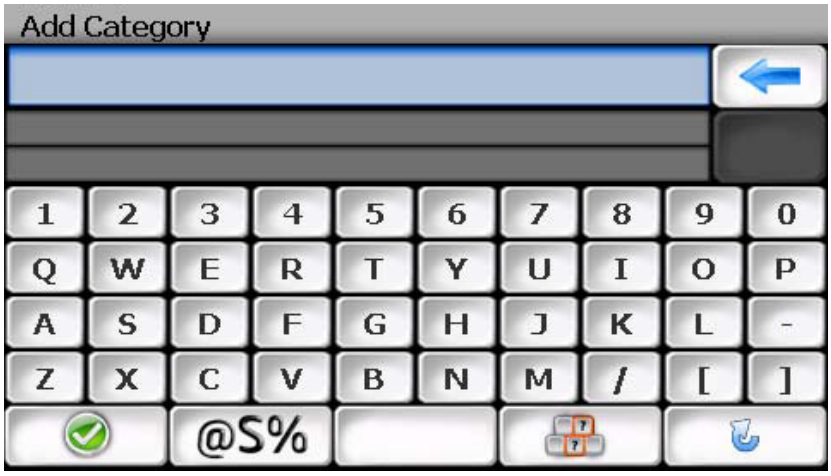
The My POI feature allows you to create personalized categories of Point Of Interest destinations. To access the My POI screen, press the following sequence of buttons, beginning on the "Main Menu": **Go To...** > **Favorites** > **Edit Favorites** > **My POI**.



### *Add Category*

Before My POI can work properly, you must create a category before adding a new POI destination. Use the keyboard to create a new POI category name and set the Icons, Sound and Distance of your choice for the new category.

1. Press **Add Category** to enter a name for the new Category.




- Press the button to clear the default entry, if desired.
- Use the keyboard to enter the name of your new Category. (See “Using the Keyboard” on page 64.)

2. Press the button to save the Category name and go to the “Setup Display” screen.

3. Determine map indicators and settings for your new Category.
   - **Set Icons Shown**: Press to select the marker that will represent POI destinations in your new Category.
   - **Sound**: Press to select a sound to be heard when you are nearing the destination (based on Distance).

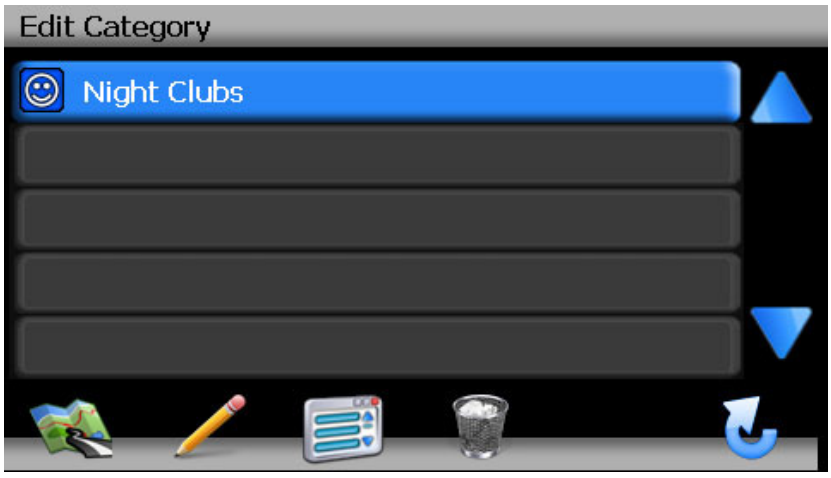
- **Distance**: Press to choose the distance from the destination at which you would like the chosen sound to be played.

4. Press the green check mark to complete the Category setup and confirm the Category entry.

5. Press the green check mark to confirm and add your new POI Category to the directory.

***Edit Category***

1. To edit an existing My POI Category, press the following sequences of menu buttons: **Go To...** > **Favorites** > **Edit Favorites** > **My POI** > **Edit Category** from the “Main Menu”.

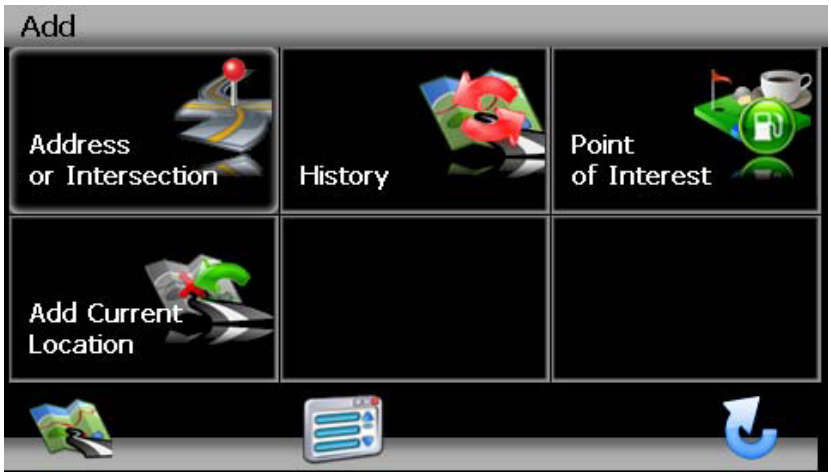



- Press to highlight a category.
- Press the pencil icon to rename the highlighted address book entry.
- Press  he trash can icon to delete the highlighted address book entry.

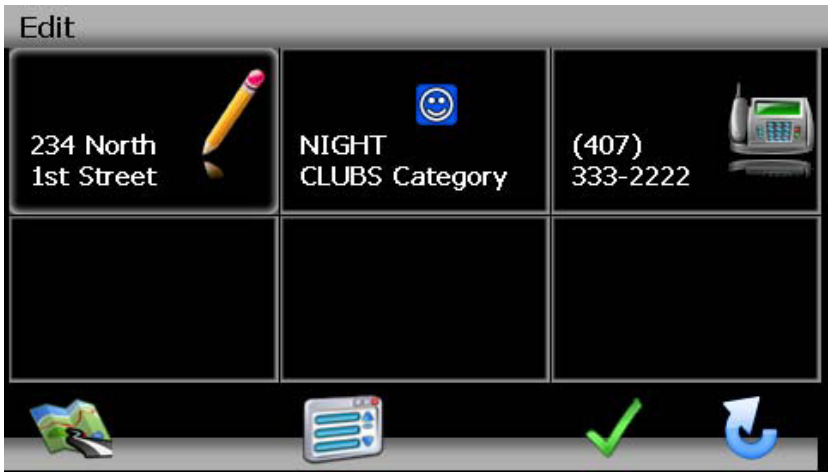
***Add destination to My POI***

While navigating or browsing the map. you can add destinations as POI’s under your newly created Categories.

1. To add a destination to a My POI Category, press he following sequences of menu buttons: **Go To...** > **Favorites** > **Edit Favorites** > **My POI** > **Add** from the “Main Menu”.

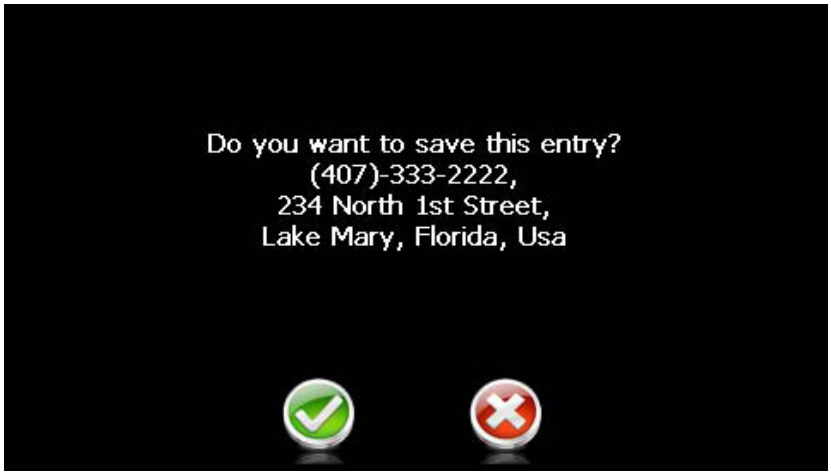



2. Refer to information in the section titled “Selecting a Destination” on page 73 to locate a destination. After entering a destination address, the “Edit” screen appears.




3. Add additional information about your POI:
   - Press the address box to edit name of your POI.
   - Press the Category box to select a category for your new POI.
   - Press the phone box, to use the on-screen keypad to enter the phone number for the new POI.

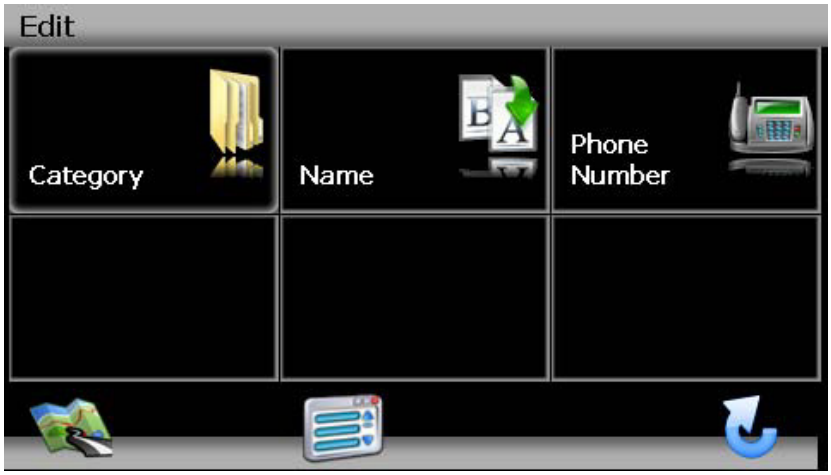
4. Press the green check mark to save your POI entry. A confirmation screen appears.




5. Press the green check mark to confirm and save the current entry under the selected Category in your My POI list.

***Edit My POI List***

To edit items on your My POI list, press the following sequences of menu buttons: **Go To...** > **Favorites** > **Edit Favorites** > **My POI** > **Edit** from the “Main Menu”.




- **Category**: Press to browse and select a POI to edit by Category.
- **Name**: Press to search for a POI by name, using the on-screen keyboard.
- **Phone Number**: Press to locate a POI by phone number, using the on-screen keypad.

# NAVIGATING

The powerful capabilities of your navigation software will guide you along the shortest or quickest route from A to B – with voice commands and in 3D (optional).

To begin navigation, select a location using the **Go To...** feature (see “Selecting a Destination” on page 73).

## Route Calculation and Guidance

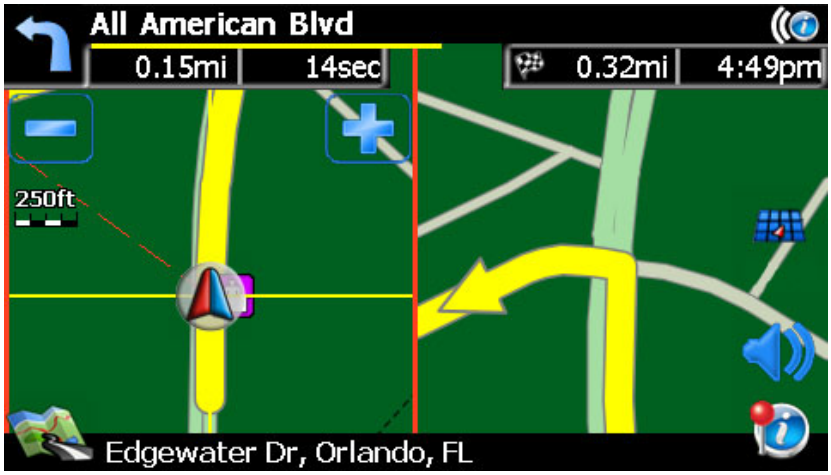
After choosing a destination, the system will determine a route based on your preferences in the “Setup” menu. (See “Setup Menu” on page 108.)

The status bar at the top of the screen indicates the route calculation progress.

Once route calculation is complete, you will be instructed to “Please proceed to the highlighted route” (if you are not already on the route). Once on the highlighted route, guidance informa ion is delivered on-screen and via voice prompts. The guidance information is continuously undated to indicate your progress.

### *Intersection Zoom*

As you approach an intersection, the map will automatically zoom in to show a close-up view of the roads near the intersection point on the right side of the screen.




### *Route Interruptions*

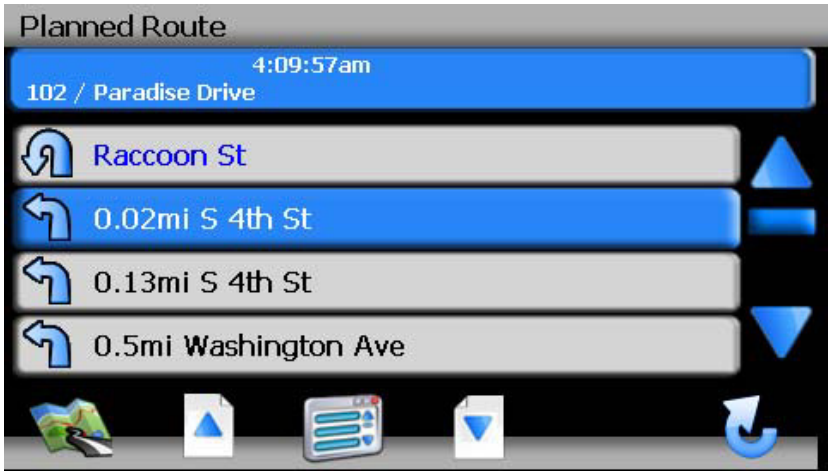
If you intentionally or accidentally leave the current route, the NavMate software will automa ically recalculate the route and prompt you to get back on track to your destination.

You can disable this feature by checking the “Auto Recalculation Off” option in the Setup menu, under Setup Routing Criteria.

If you leave the route to make a stop, the NavMate software remembers your destination and asks you if you want to continue your route.

### *Turn by Turn*

While navigating, press the next maneuver arrow on the top left corner of the map screen screen to view a turn-by-turn list of upcoming maneuvers.



Press the button to return to the map screen.

## Browsing the Map During Navigation

You can browse the map while navigating without interrupting the current route – you will still be guided through voice commands.

- To browse during navigation, touch (and hold) the screen to ac ivate the Map Browsing feature. During browsing, the map screen borders will turn orange until the **Back** button is pressed to return to the guide.
- Press the button to return to on-screen navigation.

## Adding a Detour

If you are unable to complete the route as calculated, you can add a Detour to the route that will allow you to stay on track to your destination.

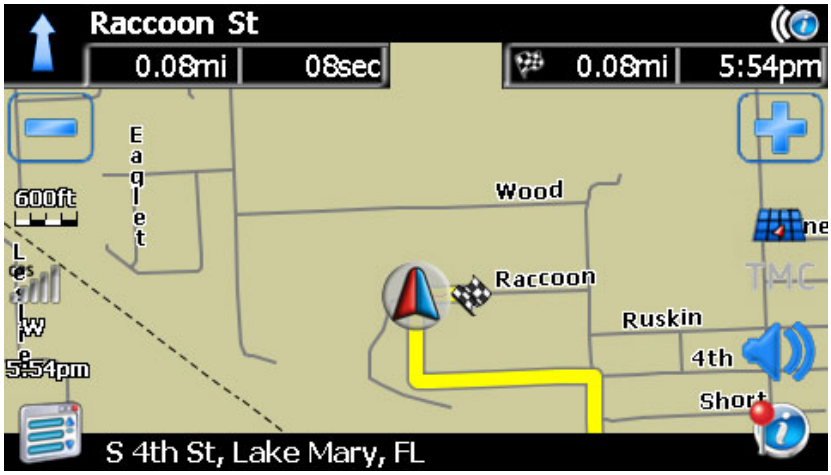
1. To add a Detour while navigating, press the button to return to the "Main Menu" and then press **Edit Route**.

2. Press **Detour** to view the “Detour” screen.

3. Choose a parameter for the Detour from the on-screen list.
   - Press the blue **Λ** / **V** arrow buttons or use the scroll bar on the right side of the screen to navigate the list.
   - Use the / buttons to move through the list page by page.
4. The NavMate software will recalculate the route based on your chosen Detour informa ion.

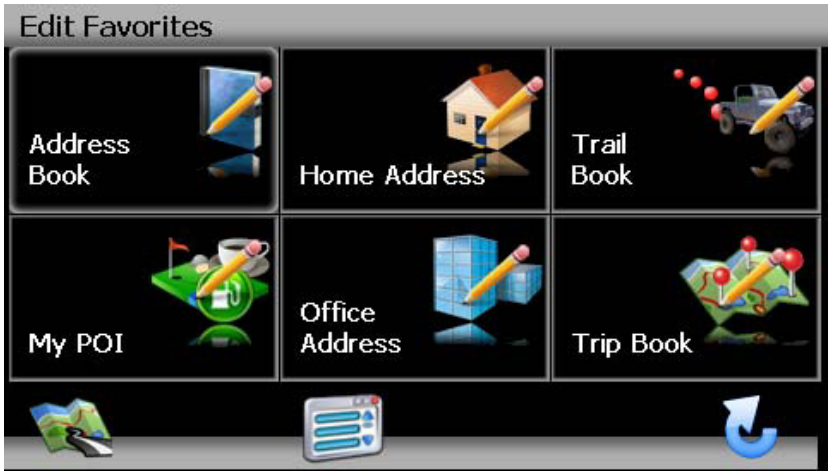
## Arriving at your Destination

When you are near your destination, the destination is indicated by a checkered flag symbol. A voice prompt will announce that you are approaching your destination.



# MANAGING FAVORITES

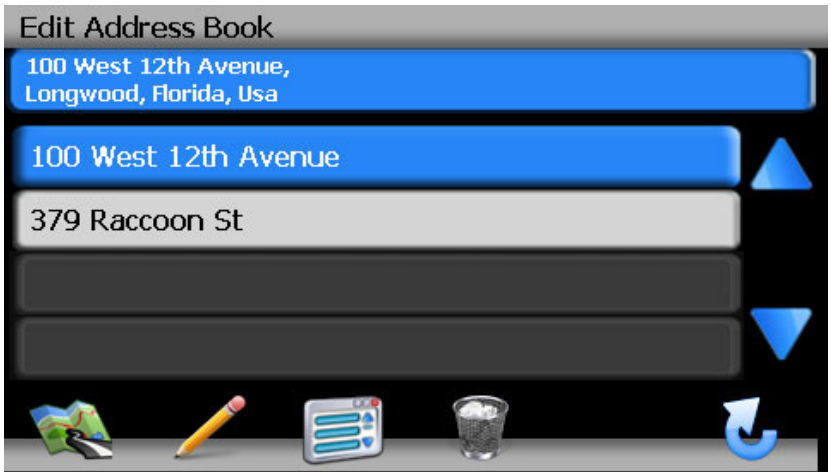
The “Edit Favorites” menu allows you to save your home and work locations, as well as other frequent destina ions for easy recall. After entering an address or searching for a POI, you can choose the Save option to bookmark your selection, eliminating the need to perform repeated searches.



## Edit Address Book

The “Address Book” feature allows you to store and edit address book entries. To edit your address book, perform the following steps:

1. Press the button to access the “Main Menu” screen.
2. Press the following on-screen buttons in the order listed:
   a. **Go To...**
   b. **Favorites**
   c. **Edit Favorites**
   d. **Address Book**
   e. **Edit Address Book**
6. The “Edit Address Book” screen appears.




- Press to highlight an Address Book entry.
- Press the pencil icon to rename the highlighted address book entry.
- Press the trash can icon to delete the highlighted address book entry.

***Edit Home/Office Address***

1. On the “Edit Favorites” menu, press the **Home Address** or **Office Address** icon to add or replace the home or office address. A window like the following will appear:

2. Refer to information in the section titled “Selecting a Destination” on page 73 to locate the home or work address.

## Edit Trip Book

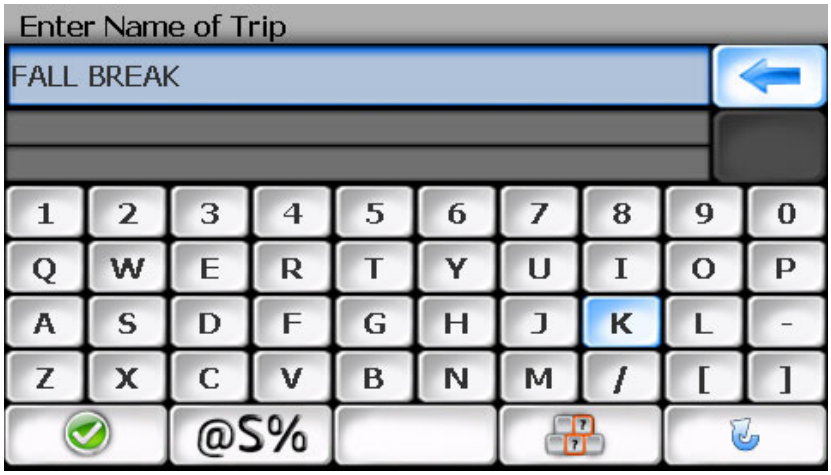
The “Trip Book” is a collection of trips with each trip representing a set of multiple destinations.

1. To access the Trip Book function, press the **Trip Book** button on the “Edit Favorites” menu.

2. Press the **Add** button to create a new Trip or the **Edit** button to edit an existing Trip.

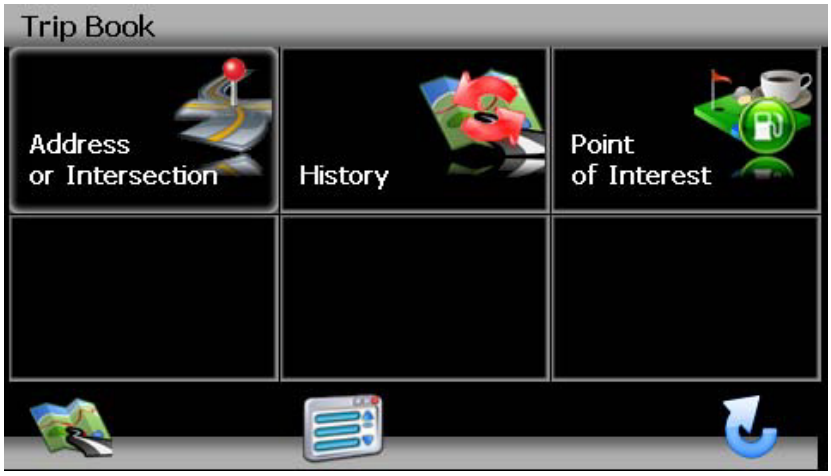
***Add New Trip***

1. After pressing the Add button, use the on-screen keyboard to enter a name for your trip.




- Press the button to clear the default entry, if desired.
- Use the keyboard to enter the name for your Trip. (See “Using the Keyboard” on page 64.)

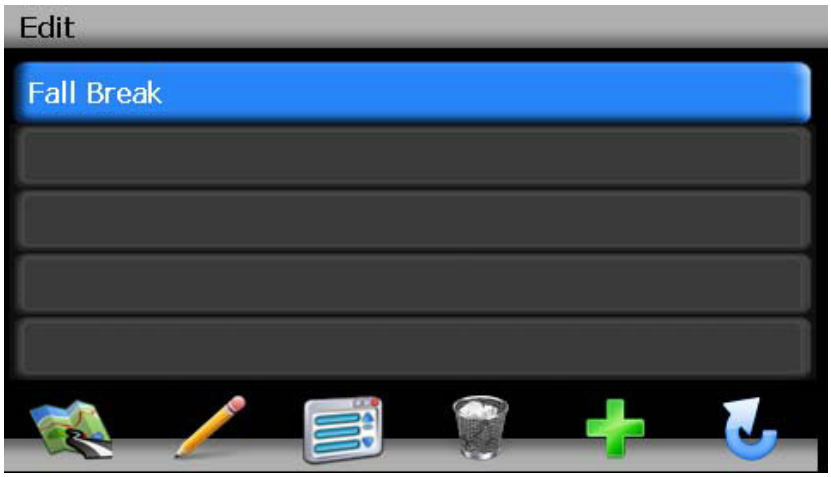
- Press the button to save the Trip name and go to the “Trip Book” screen.



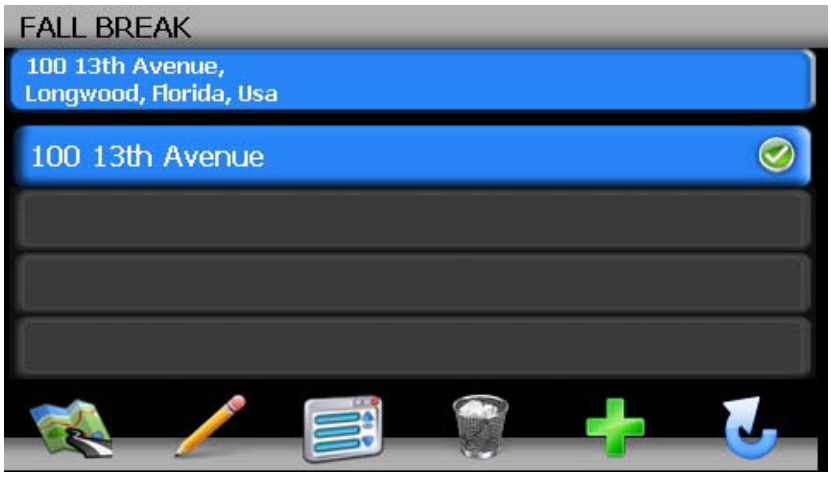

2. Refer to information in the section titled “Selecting a Destination” on page 73 to locate the home or work address.

***Edit Trip***

1. To edit an existing Trip press the following sequences of menu buttons: **Go To...** > **Favorites** > **Edit Favorites** > **Trip Book** > **Edit** from the “Main Menu”.
2. Press to highlight the Trip you want to modify. The “Edit” screen appears.



3. Press to highlighted a Trip and view the destination screen for your trip.




4. Use the buttons at the bottom of the screen to make changes to you trip destinations or to add a new destination.
   - Touch to highlight a destination.
   - Press the pencil icon to rename the highlighted destination.
   - Press the garbage can icon to delete the highlighted destination from your trip.
   - Press the green + icon to add an additional destination to your trip.

## Edit Trail Book

The “Trail Book” option allows adding, editing and Setup display for trail book entries. The “Trail Book” allows you to track off-road navigation in areas where the digital map coverage is not sufficient or missing. A trail represents a path taken by a vehicle while the trail is being recorded. Each trail is shown on the map as a series of dots that can be color-coded for each trail.

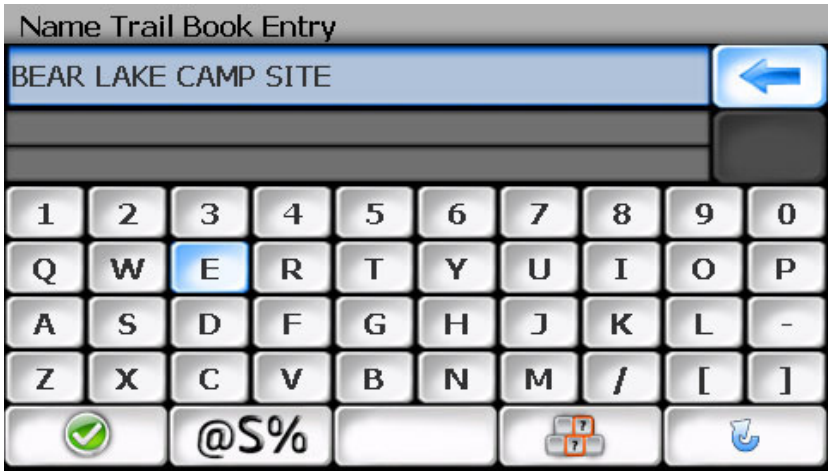
You can also assign names, called waypoints, to some of the dots on the trail. These waypoints will be shown on the map. All other dots representing the trail are recorded automatically by the NavMate application. Once the trail is recorded and saved, you can choose the named waypoints as future destinations.

1. To access the Trail Book function, press the **Trail Book** button on the “Edit Favorites” menu.

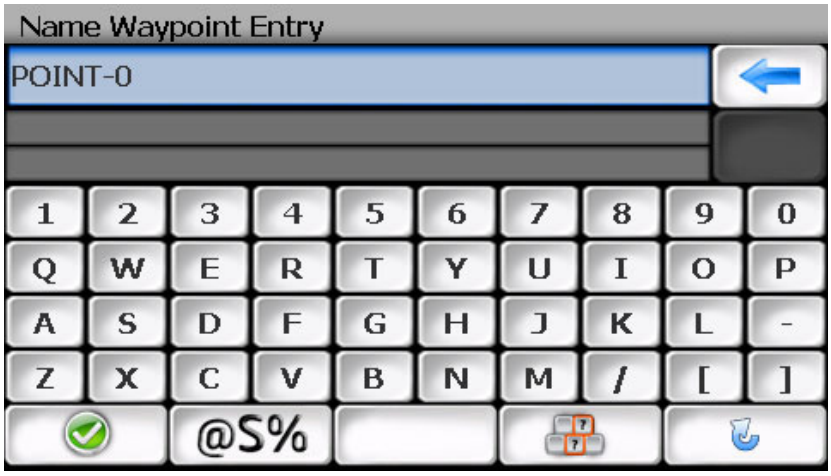
2. Press the **Add** button to create a new Trail or the **Edit** button to edit an existing Trail.

### *Create a New Trail*

After pressing the **Add** button to create a new trail, you will see the “Name Trail Book Entry” screen, shown below:



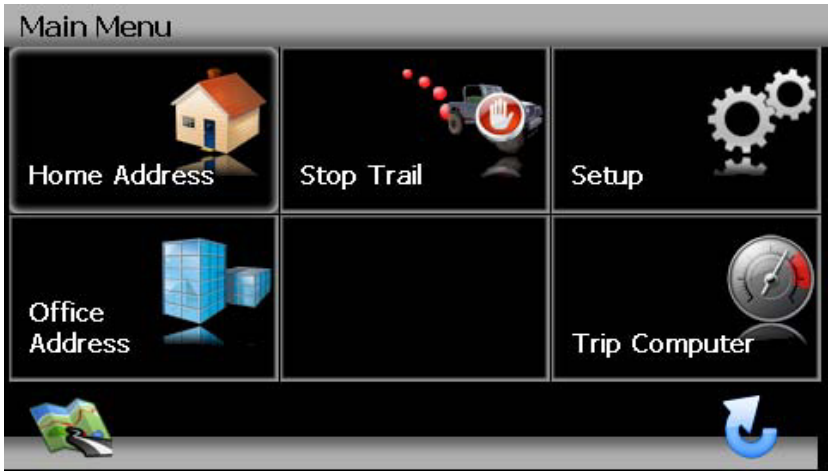

1. Press the button to clear the default entry, if desired.
2. Use the keyboard to enter the name for your Trail. (See “Using the Keyboard” on page 64.)
3. Press the button to save the Trail name and go to the navigation screen.
4. Press the button to add your current position as a waypoint. The “Name Waypoint Entry” screen appears:




5. Use the keyboard to enter a name for your waypoint and then press to save and return to the navigation map.

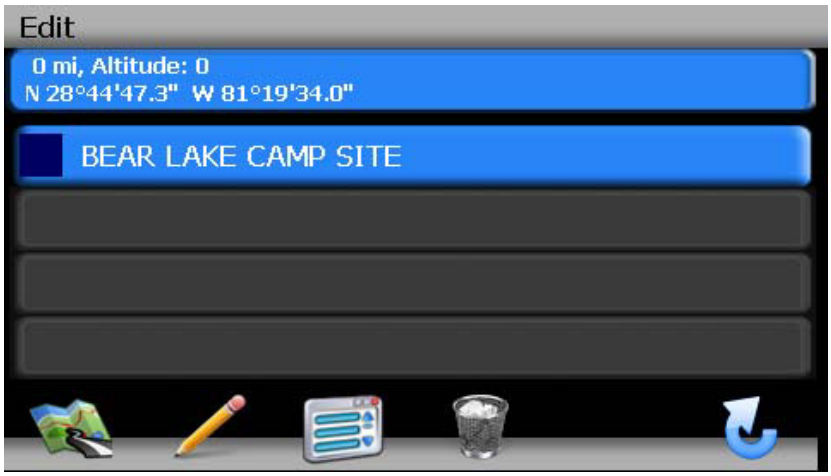
6. Continue adding waypoints until your trail is complete.

7. When finished, press the button and then choose **Stop Trail**.

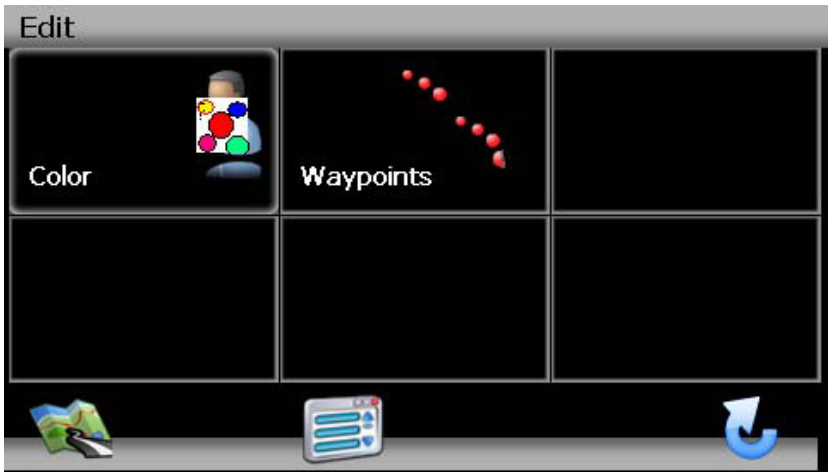



***Edit Trail***

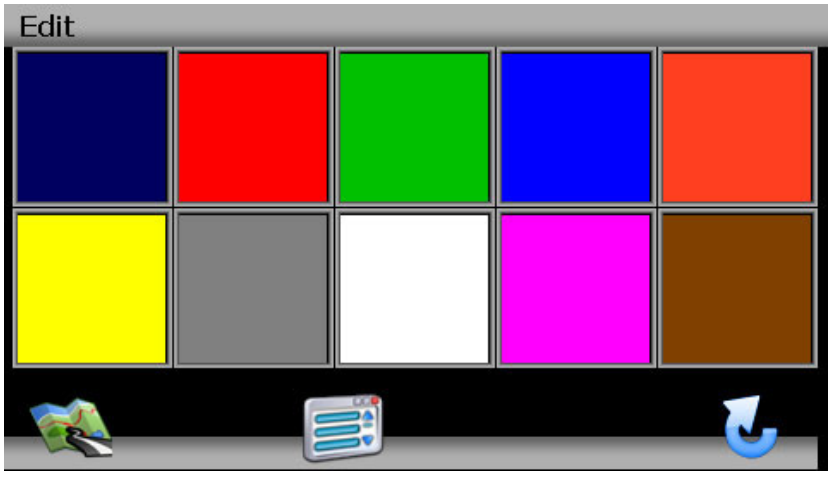
1. To edit an existing Trail press the following sequences of menu buttons: **Go To...** > **Favorites** > **Edit Favorites** > **Trail Book** > **Edit** from the “Main Menu”.



2. Press to highlight the Trail you want to modify. The “Edit” screen appears.



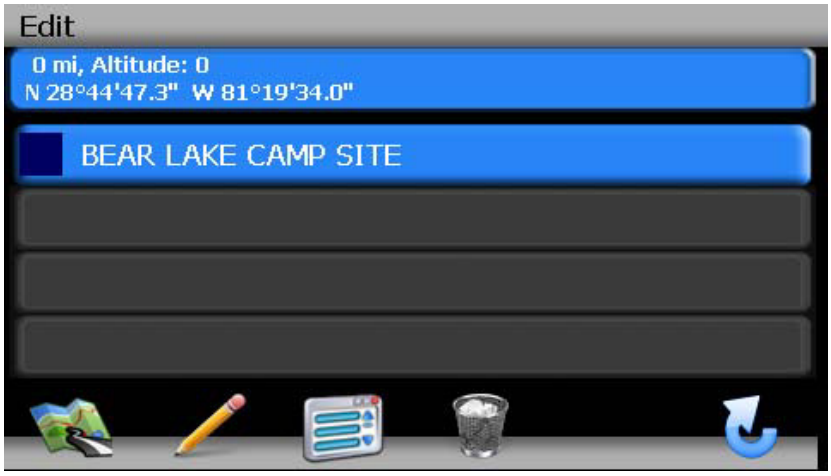

3. Press **Color** to choose from ten colors for your dotted line guidance. Press the desired color to apply that color and return to the “Edit” menu.




4. Press **Waypoints** to edit waypoints on your trail.
   - Press to highlight a waypoint.
   - Press the pencil icon to edit the name of the waypoint.
   - Press the trash can icon to delete the waypoint (you will be asked to confirm deletion).
   - Press the blue **Λ** / **V** arrow buttons or use the scroll bar on the right side of the screen to navigate the list.

***Delete Trail***

1. To edit an existing trail press the following sequences of menu buttons: **Go To...** > **Favorites** > **Edit Favorites** > **Trail Book** > **Edit** from the “Main Menu”.

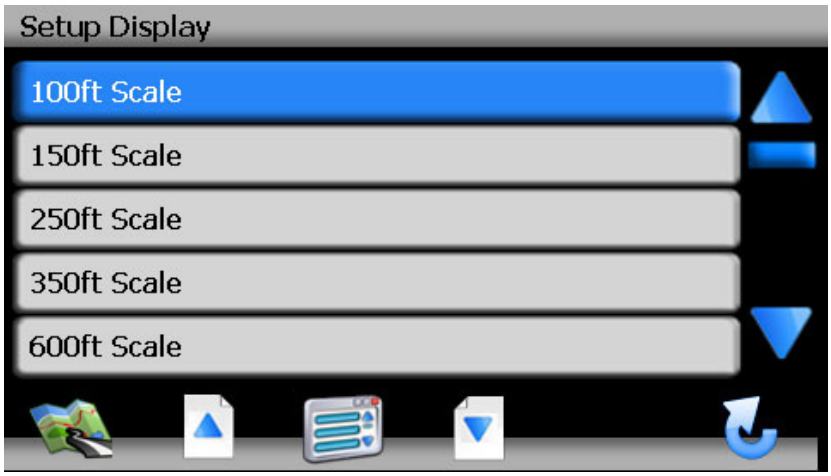



2. Press to highlight the trail you want to delete.
3. Press the garbage can icon to delete the highlighted trail.
4. Press the green check mark to confirm deletion.

***Set Up Trail Display***

1. To set a map scale display preference for trails, press the **Setup Display** option on the “Trail Book” screen.

2. Press to select the desired map scale.




3. Press the green check mark next to each trail to which you would like to apply  he map scale setting.

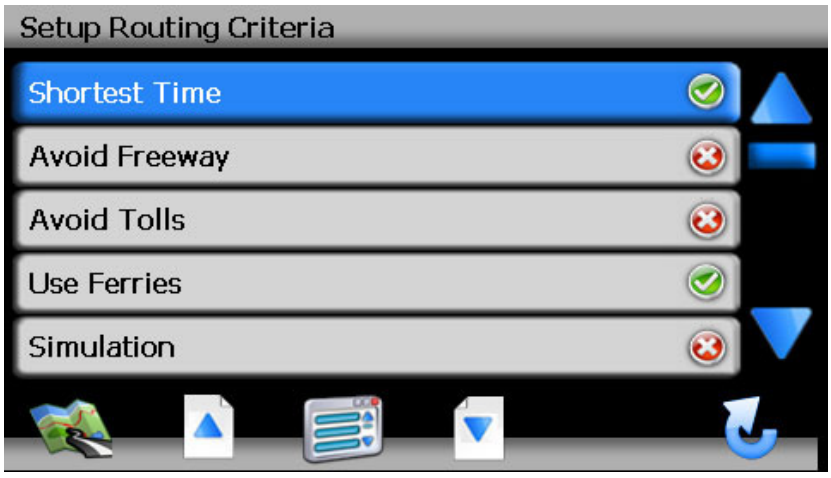
# SETUP MENU

When using the navigation software for the first time, it is recommended that you customize the system parameter settings. For example, regarding navigation, you can choose to avoid or allow toll roads or ferries or change your map orientation. You can also edit display set ings, including the display of on-screen navigation icons.

To get started, press the **Setup** button on the “Main Menu”.

You can always press the button to return to the previous screen.

## Setup Routing Criteria

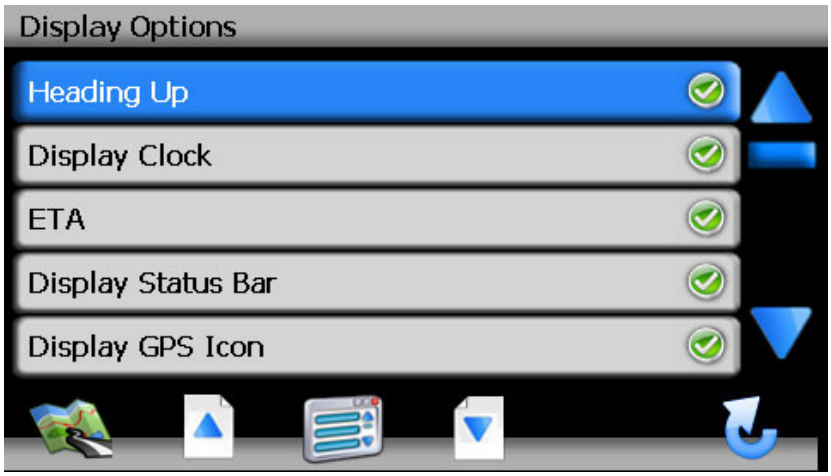



- **Shortest Time**: Calculate route based on the fastest time.
- **Avoid Freeway**: Try not to use highways when calculating routes.
- **Avoid Tolls**: Do not use toll roads when calculating routes.
- **Use Ferries**: Use ferry travel when calculating routes.

- **Simulation**: Enable simulation mode (perform simulated navigation when not traveling).
- **Auto Recalculation**: Automatically recalculate the route if a wrong turn is made.
- **Voice Guidance**: When on, the system will give voice prompts.
- **Announcement Tone**: When on, the system will give a double tone to alert you of the next turn.

## Display Options

To select which and how many icons are displayed on the map or to change the map orientation, press **Display Options** on the “Setup” menu.




***Heading Up/North Up***

- **Heading Up**: This mode will display the map with the vehicle direc ion always pointing up. The map will rotate and move accordingly during navigation while the green arrow representing the vehicle stays up and still.
- **North Up**: This mode will display the map with North always pointing upward. The map will not rotate during navigation. The green arrow representing the vehicle will rotate and move according to the vehicle location on the map.

***On-Screen Icons***

Press to turn the display for any of the following icons or information on/off:

- **Display Clock**
- **ETA**
- **Display Status Bar**
- **Display GPS Icon**
- **Display Scale Icon**
- **Display Compass Icon**
- **Display Next Maneuver**

- **Enlarged Intersection**

## User Preferences

### *Language Settings*

Press to choose from a list of available languages for on-screen text. Once a new language is selected, you will return the initial screen and be required to review safety information in the chosen language.

### *Voice Guidance*

Press to choose from the following available languages for voice guidance:

- English USA - Dave
- English USA - Rebecca

### *Set Time*

Your clock time must begin with 1, 2 or 0. For example, enter “0835” for 8:35

and then press **AM** or **PM**, or press **24** for 24-hour clock display (military time). If you press **24** after entering “08:35”, the time will automatically be set for AM, since “08:35 PM would be “20:35” in 24-hour display mode.

Press the button to save your time setting and return to the “User Preferences” menu.

### *Distance Units Settings*

Press to select one of the following units for distance measurements:

- Miles
- Kilometers/Meters
- Miles/Yards

### *Day/Night Settings*

From the Day/Night Settings menu, press to select **Day** or **Night** mode, shown below. Press **Auto.** to allow the mode to be chosen automatically based on the time of day.

### *Point of Interest Icon Setup*

This option allows you to choose a specific POI icon scale for selected POI categories.

1. Choose from the following options:
   - Select Marker 100ft Scale
   - Select Marker 150ft Scale
   - Select Marker 250ft Scale
   - Select Marker 350ft Scale
   - Select Marker 600ft Scale
2. Press to turn the setting on/off for various categories.

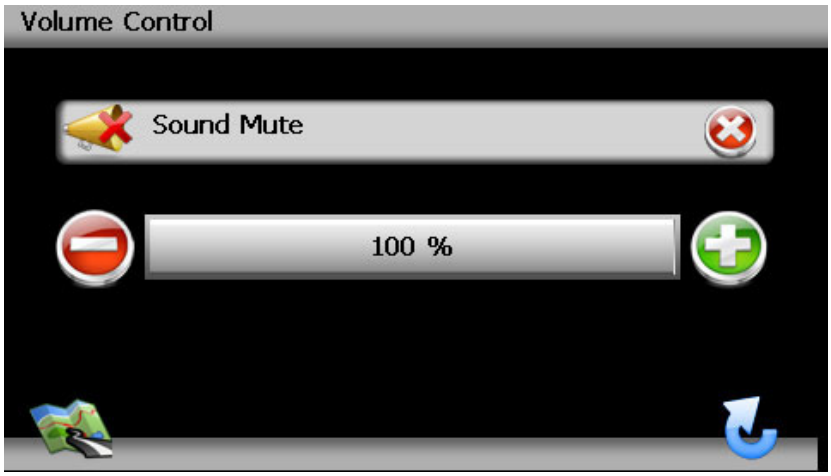
## Location Reset

Press to reset the location of your vehicle.

## System

### *Volume*

From the “System” menu, select **Volume** to modify  he volume of voice commands.




- Press the **+** button to increase the volume.
- Press the **–** button to decrease the volume.
- Press the **SOUND Mute** button to silence or resume the voice command volume.

### *GPS Diagnostics*

View satellite information for diagnostic use, including  he number of satellites currently in view and how many are being used. You can also view the GPS time along with the current latitude and longitude.

### *System Information*

View software version, map version and copyright information.

Audiovox Electronics Corporation
Hauppauge, NY 11788
Technical Assistance: 1-800-323-4815
www.jensen.com

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Ver. 030510
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# VM9424

## What's in the Box

VM9424 Head Unit
Left and Right Double DIN
Mounting Brackets
Double DIN Half Sleeve Install Bracket
Remote Control with Battery
Two Custom Cosmetic Trim Rings
Parking Brake Wire
Hardware Bag
Speaker Output Harness
Power Input Harness
2 x Accessory Harness
Installation Guide

## Tools and Supplies

You will need these tools and supplies to install your VM9424:

- Torx type, flat-head and Philips screwdrivers
- Wire cutters and strippers
- Tools to remove existing radio (screw driver, socket wrench set or other tools)
- Electrical tape
- Crimping tool
- Volt meter/test light
- Crimp connections
- 18 gauge wire for power connections
- 16 – 18 gauge speaker wire

**WARNING! Never install this unit where operation and viewing could interfere with safe driving conditions.**

## Optional Equipment

- **BTM10**: Allows you to connect to a Bluetooth enabled cell phone or other device.
- **Rear Camera**

## Disconnecting the Battery

To prevent a short circuit, be sure to turn off the ignition and remove the negative (-) battery cable prior to installation.

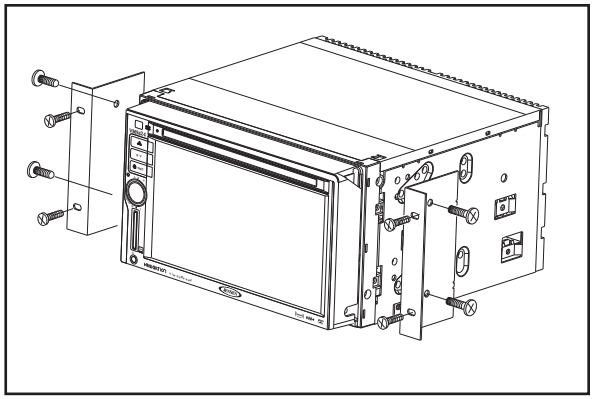
*NOTE: If the VM9424 is to be installed in a car equipped with an on-board drive or navigation computer, do not disconnect the battery cable. If the cable is disconnected, the computer memory may be lost. Under these conditions, use extra caution during installation to avoid causing a short circuit.*

## Replacing the Fuse

When replacing the fuse, use a new 15A replacement fuse. Using a fuse with an improper rating could damage the unit and cause a fire.

## ISO-DIN Installation

This unit is designed to fit into a 2.0 DIN dashboard opening, found in many imported cars. The unit has threaded holes in the chassis side panels which may be used with the original factory mounting brackets of some Toyota, Nissan, Mitsubishi, Isuzu, Hyundai and Honda vehicles to mount the radio to the dashboard. Please consult with your local car stereo specialty shop for assistance on this type of installation.



1. Remove the existing factory radio from the dashboard or center console mounting. Save all hardware and brackets as they will be used to mount the new radio.
2. Remove the factory mounting brackets and hardware from the existing radio and attach them to the new radio. *CAUTION: Do not exceed M5 X 6MM screw size. Longer screws may damage components inside the chassis.*
3. Place the radio in front of the dashboard opening so the wiring can be brought through the mounting sleeve. Follow the wiring diagram carefully and make certain all connections are secure and insulated with wire nuts or electrical tape. After completing the wiring connections, plug the ISO connectors into the mating sockets on the rear of the chassis. Turn the unit on to confirm operation (vehicle ignition switch must be “on”). If the unit does not operate, re-check all wiring until the problem is corrected.
4. Mount the new radio assembly to the dashboard or center console using the reverse procedure in step 1.

*CAUTION! Be careful not to damage the car wiring.*

*NOTE: It is the end-users responsibility to install and operate this unit in a manner in accordance with local, state and federal laws. The PARKING BRAKE wire MUST BE CONNECTED as directed in the manual.*

*CAUTION: Do not block the cooling fan exit. If blocked, the unit may overheat and become damaged.*

## Installation Using Half-Sleeve

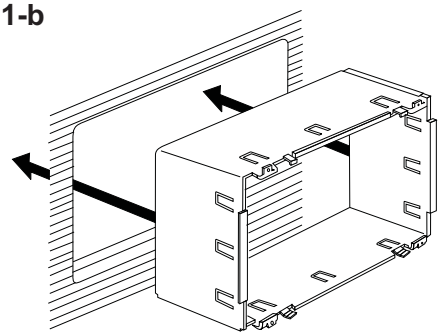
1. Install half-sleeve in the dashboard.
   a. Install adapter if necessary (optional).
   b. Install half-sleeve into adapter or dashboard (use only the supplied screws). Do not force the sleeve into the opening or cause it to bend or bow.
   *WARNING! Only connect the unit to a 12-volt power supply with proper grounding.*
   c. Locate the series of bend-tabs along the top, bottom and sides of the mounting sleeve. With the sleeve fully inserted into the dashboard opening, bend as many of the tabs outward as necessary so that the sleeve is firmly secured to the dashboard.
2. Use the M5 x 6 screws (provided) to install the mounting brackets to each side of the radio using the holes indicated in the diagram. **DO NOT USE OTHER SCREWS.**
3. Place the radio in front of the dashboard opening so the wiring can be brought through the mounting sleeve.
4. Complete wiring as illustrated in the wiring diagram. Once the wiring is complete, reconnect the battery negative terminal. If there is no ACC available, connect the ACC lead to the power supply with a switch.
   *CAUTION! Be careful not to damage the car wiring.*
5. After completing the wiring connections, turn the unit on to confirm operation (ignition switch must be on). If unit does not operate, recheck all wiring until problem is corrected. Once proper operation is achieved, turn off the ignition switch and proceed with final mounting of the chassis.
   a. Connect wiring adapter to existing wiring harness.
   b. Connect antenna lead.
   c. Carefully slide the radio into the half-sleeve, making sure it is right-side-up. Use the supplied screws to attach the radio to the half sleeve.

## Using the Cosmetic Trim Ring

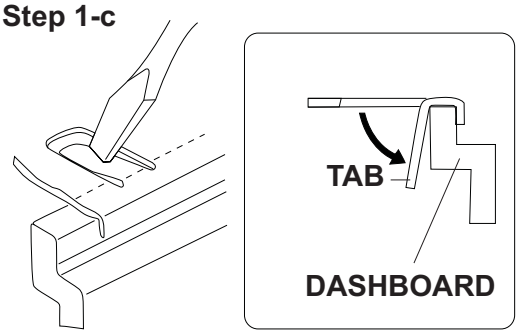
Two cosmetic trim rings are packaged with the head unit for installation flexibility. This unit will fit into most import dashes with little or no modification to the dash board/cavity. Some US domestic vehicle dashes will accept a Double-DIN chassis, but there is usually a small gap between the radio and dash piece after installation is complete. In this case, use the appropriate trim ring to conceal any gaps that may be present.

*NOTE: For proper operation of the CD/DVD player, the chassis must be mounted within 30° of horizontal. Make sure the unit is mounted within this limitation.*

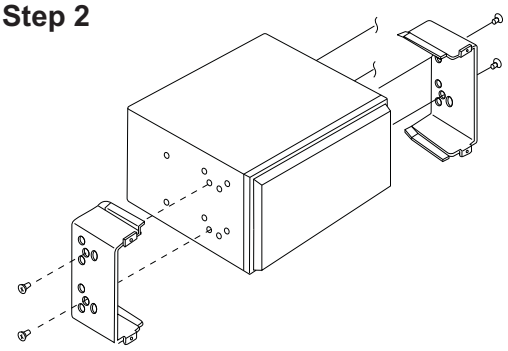
**Step 1-b**



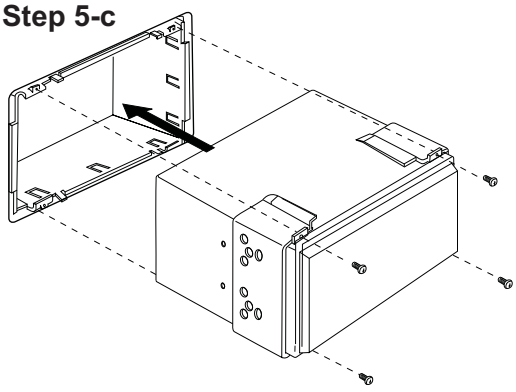
**Step 1-c**

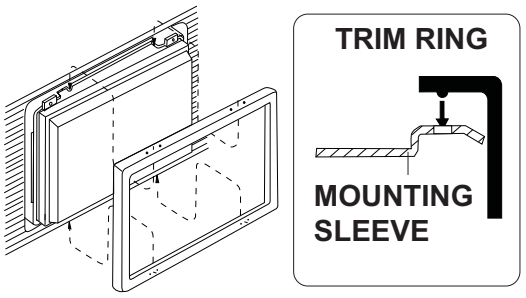



**Step 2**



**Step 5-c**

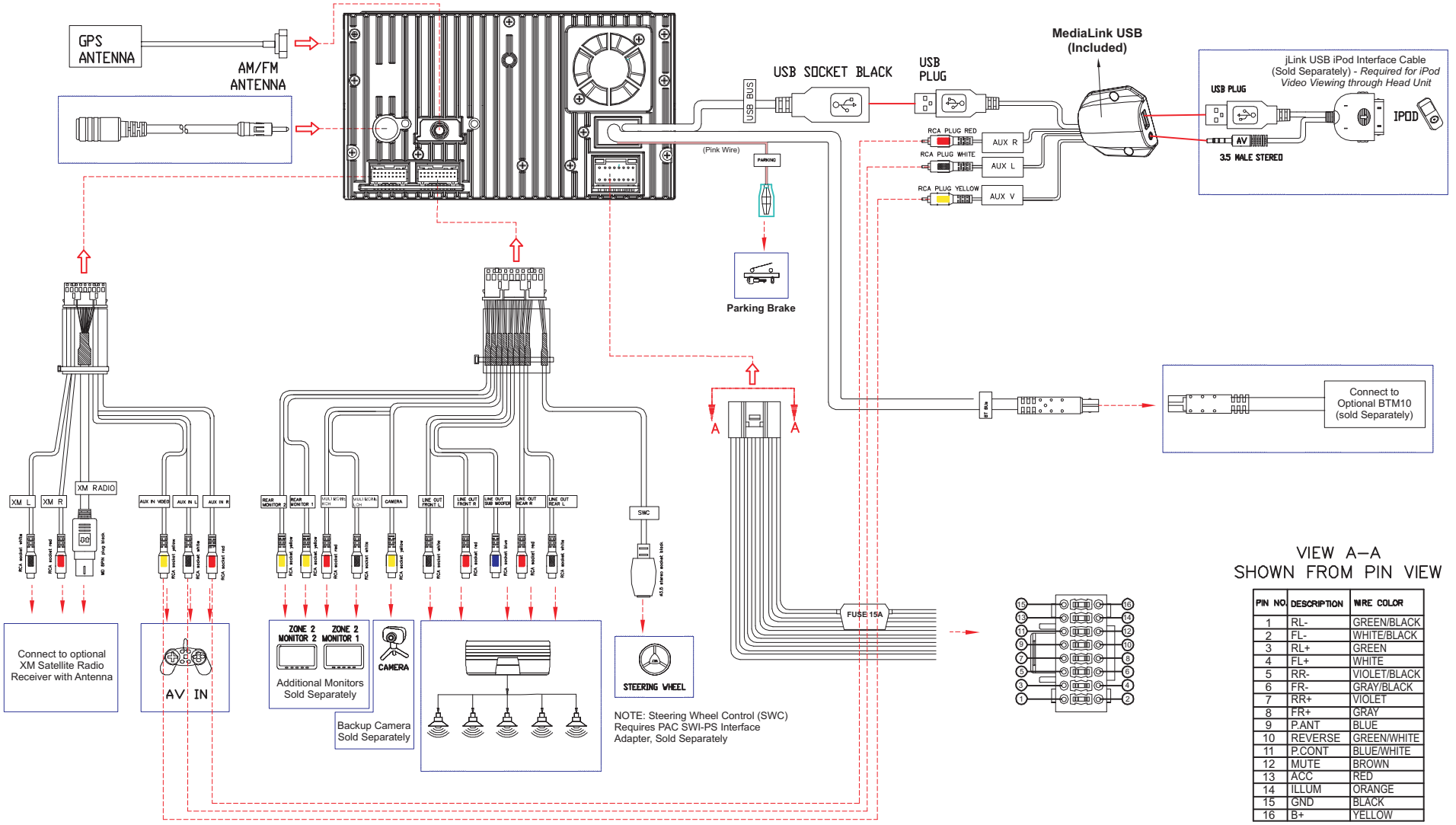




# Wiring Diagram

*IMPORTANT: Incorrect wiring connections can damage the unit. Follow the wiring instructions carefully, or have the installation handled by an experienced technician.*

**Need Help?** For technical assistance, call the Jensen customer support line at 1-800-323-4815.




VIEW A–A
SHOWN FROM PIN VIEW

| PIN NO. | DESCRIPTION | WIRE COLOR |
|---|---|---|
| 1 | RL- | GREEN/BLACK |
| 2 | FL- | WHITE/BLACK |
| 3 | RL+ | GREEN |
| 4 | FL+ | WHITE |
| 5 | RR- | VIOLET/BLACK |
| 6 | FR- | GRAY/BLACK |
| 7 | RR+ | VIOLET |
| 8 | FR+ | GRAY |
| 9 | P.ANT | BLUE |
| 10 | REVERSE | GREEN/WHITE |
| 11 | P.CONT | BLUE/WHITE |
| 12 | MUTE | BROWN |
| 13 | ACC | RED |
| 14 | ILLUM | ORANGE |
| 15 | GND | BLACK |
| 16 | B+ | YELLOW |

56-2000

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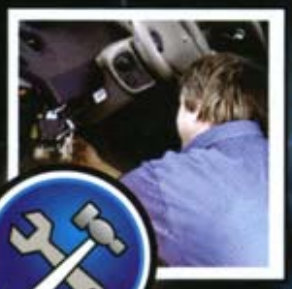
"Leave the Installation to us"

# PROFESSIONAL INSTALLATION OR DIY INSTALLATION INSTRUCTIONS



Do-it-Yourself with our easy instructions

DIY

If you can't do it on your own, we have the professionals here to help!

- Online Scheduling
- Customer Service
- Certified Installers
- The Right Tools

LIFETIME WARRANTY CERTIFIED INSTALLER

## Need Professional Installation?

InstallCard installation to go

Patent Pending

Choose DIY or Professional Installation

DIY

LIFETIME WARRANTY CERTIFIED INSTALLER

Professional Installation 56-2000

56-2000

1 80892 00000 2

## PROFESSIONAL INSTALLATION* OR DIY SERVICES

*separate purchase required

Online Scheduling → Customer Service → Certified Installers → The Right Tools

InstallerNet "Leave the Installation to us" *Including In-Car Product Demonstration*

### DO-IT-YOURSELF INSTALLATION SUPPORT

- Download Instructions Day or Night 24-7
- Easy-to-follow instructions just a click away
- Professional Installation services availible if needed*

*SEPARATE PURCHASE REQUIRED

### THE PROFESSIONAL INSTALLATION ADVANTAGE

- Friendly Customer Service availible 24-7
- Certified Installers
- Lifetime Warranty on your Installation
- Convenient Online Scheduling

INCLUDES BASIC INSTALLATION IN MOST VEHICLES

Visit www.Jensen.InstallCard.com for more information

**Questions or Comments**
e-mail: service@InstallerNet.com

InstallerNet
(800) 950-9869

NOT VALID FOR RETURN IF INSTALLCARD IS DETACHED

## How to Activate your *InstallCard* and Choose DIY or Schedule Installation

1. Visit www.Jensen.InstallCard.com
2. Choose DIY or Schedule Installation
3. Enter the InstallCard Number below
4. Download your instructions or Schedule your installation

InstallCard No:

managed by InstallerNet
(800) 950-9869

After activating this InstallCard, you may use it to install your mobile electronics product at any of our authorized InstallerNet member locations nationwide. Some vehicles will require additional parts or labor which may be purchased separately at time of installation. Lifetime warranty on installation for as long as you own the vehicle. This InstallCard is valid up to one year from date of purchase where permitted by law. Visit www.InstallCard.com for more information. NOT VALID UNTIL PURCHASED.

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**DO NOT RETURN THIS PRODUCT TO THE RETAIL STORE!**
**FOR ASSISTANCE, PLEASE CALL: 1.800.323.4815 OR VISIT**
**OUR WEBSITE: WWW.AUDIOVOX.COM**

# Limited Warranty

***CD or Multimedia Radios/Headunits***

**DO NOT RETURN THIS PRODUCT TO THE STORE**

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**Audiovox Electronics Corporation ("the Company") is committed to quality and customer service, and are pleased to offer you this Warranty. Please read it thoroughly and contact the Company at 1-800-323-4815 with any questions.**

***Who is covered?***

The Company extends this warranty to the original retail purchaser of products purchased through an authorized Audiovox retailer in the U.S.A., Puerto Rico or Canada. This warranty is not transferable or assignable. Proof of purchase is required in the form of an original sales receipt.

***What is covered?***

The Company warrants that should this product or any part thereof, under normal use, be proven defective in material or workmanship within 12 months from the date of original purchase, such defect(s) will be repaired or replaced with a new or reconditioned product (at the Company's option) without charge for parts and repair labor.

***What is not covered?***

This Warranty *does not* cover the following:

- Damage incurred during shipping or transporting the product to the Company or a service center
- Elimination of car static or motor noise
- Defects in cosmetic, decorative or non-operative structural parts
- Correction of antenna problems
- Costs incurred for installation, removal or reinstallation of the product
- Consequential damage to compact discs, USB devices, digital media cards, accessories or vehicle electrical systems
- Damage caused by improper installation, mishandling, misuse, neglect, accident, blown fuse, battery leakage, theft or improper storage
- Products whose factory serial number/bar code label(s) or markings have been removed or defaced
- Damage resulting from moisture, humidity, excessive temperature, extreme environmental conditions or external natural causes

**Please review the "Care and Maintenance" section of your Installation and Operation Manual for additional information regarding the proper use of your product.**

***Limitations***

THE EXTENT OF THE COMPANY'S LIABILITY UNDER THIS WARRANTY IS LIMITED TO THE REPAIR OR REPLACEMENT PROVIDED ABOVE AND, IN NO EVENT, SHALL THE COMPANY'S LIABILITY EXCEED THE PURCHASE PRICE PAID BY PURCHASER FOR THE PRODUCT.

This Warranty is in lieu of all other express warranties or liabilities. ANY IMPLIED WARRANTIES, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY, SHALL BE LIMITED TO THE DURATION OF THIS WRITTEN WARRANTY. ANY ACTION FOR BREACH OF ANY WARRANTY HEREUNDER INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY MUST BE BROUGHT WITHIN A PERIOD OF 24 MONTHS FROM DATE OF ORIGINAL PURCHASE. IN NO CASE SHALL THE COMPANY BE LIABLE FOR ANY CONSEQUENTIAL OR INCIDENTAL DAMAGES FOR BREACH OF THIS OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED, WHATSOEVER. No person or representative is authorized to assume for the Company any liability other than expressed herein in connection with the sale of this product.

Some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damage so the above limitations or exclusions may not apply to you. This Warranty gives you specific legal rights and you may also have other rights which vary from state to state.

***Obtaining Warranty Service***

- To obtain repair or replacement within the terms of this Warranty, call 1-800-323-4815 for the location of a warranty station serving your area.
- You must prepay the initial shipping charges to the Company. The Company will pay the return shipping charges for all warranteed products returned to an address within the U.S.A., Puerto Rico or Canada.
- Please package the product securely to avoid shipping damage. We recommend using a carrier that provides tracking service to prevent lost packages. Lost or damaged packages are not covered by this warranty.
- Provide a detailed description of the problem(s) for which you require service.